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ABSTRACT

This compilation of abstracts summarizes the papers and symposia proceedings of the 2nd Convocation (1971) of the Northeastern Educational Research Association. Many topics in educational research are covered, such as: measurement, accountability, evaluation, instructional techniques, disadvantaged youth, testing, and special programs. A listing of conference participants is also included. (CK)

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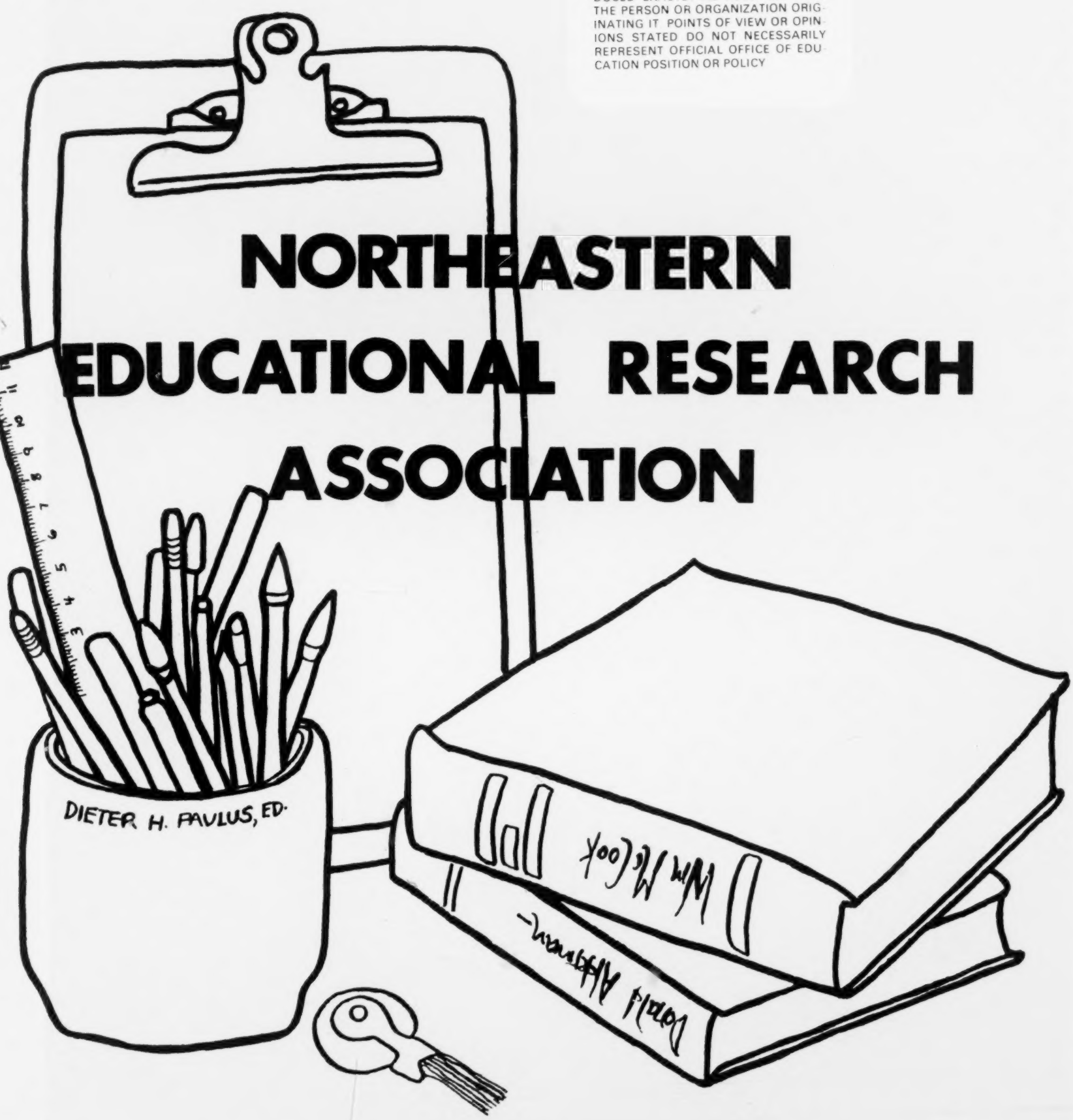

ABSTRACTS
2nd Annual Convocation
November 1971

TM 001 099

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1971

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Pre-sessions

WILLIAM MCLOUGHLIN .....St. John's University

Thursday, November 11 Nightwatch Room

2:00 - 3:30 P.M.

REPORTING SESSION 1

CHAIRMAN:

Michael B. Sewall, Mohawk Valley Community College

PAPERS:

Piaget and Criterion Referenced Measurement

William M. Gray, University of Dayton

Two important trends in present-day education are those revolving around criterion referenced measurement and the ideas of Jean Piaget. Because of their particular philosophical origins and orientations, the two approaches could be, and usually are, interpreted as being contradictory and/or mutually exclusive; however, when examined closely, many similarities between the two trends become evident. The present discussion focused on these similarities and their possible practical application(s) to education.

Because of the broadness of the Piagetian approach, which cuts across the distinctions between norm and criterion referenced measurement, and the inherent necessity for evaluation within the basic Piagetian constructs of structure, function, and content, the present discussion considered criterion referenced measurement as an integral part of the Piagetian system. Specifically, the discussion centered on the following "issues" related to criterion referenced measurement and their relation to the Piagetian framework: (a) means of assessment; (b) performance to be assessed; (c) acceptable performance level; (d) types of criterion referenced measures (Ideal Guttman model and typical every day variety).

Two general conclusions were made: (a) Although there may be some differences in emphasis between the two approaches, they are highly compatible; and (b) with the current emphasis on both in contemporary educational theory, it would seem appropriate to utilize them concurrently in developing efficient and appropriate means of assessing children so that these means might be employed in practice to better enable teachers to facilitate learning.

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Thursday, November 11 Nightwatch Room

The Behrens-Fisher Problem: Univariate and Multivariate Solutions

Ronald J. Hritz, C. Stegman, and N. Timm
University of Pittsburgh

The Behrens-Fisher problem is that of comparing the means of two populations when the assumptions of independence and normality are tenable but the assumption of equal variances is unreasonable. The proposed univariate and multivariate solutions (t-like, etc.) are reviewed and discussed. Examples of the various solutions are computed for the same data for illustrative as well as comparison purposes. The discussion concentrates on the feasibility of the solutions for the practitioner.

* *

The Relationship of the 1960 Stanford-Binet with Measures of Achievement, Intelligence, and Aptitude Over a Maximum Period of Nine Years

Stuart E. Smith, Alfred University
William D. Churchill, Arizona State University

Cronbach (1970, p. 235) noted that "studies of the predictive validity of individual tests on representative samples are scarce, because the tests are ordinarily applied only to cases referred for special study." The primary objective of the present study was to determine the relationship (1) between third grade 1960 SB IQs and measures of intelligence and aptitude given in grade 9 and 10 for a group of 41 students, and (2) to determine the relationship between first grade 1960 SB IQs and the same criteria for a second group of 33 students.

Method

The sample was comprised of two classes, hereinafter designated as Group I and Group II. Group I consisted of 41 students; Group II of 33 students.

For Group I, the data were obtained from the school's records of test information on file for each student, as follows:

1. IQ, 1960 SB, administered in grade 3,
2. Composite score, Iowa Test of Basic Skills, Form 2, 1955 edition, administered grade 3,
3. IQ, Lorge-Thorndike, Verbal and Non-Verbal, Form A, Intermediate, administered grade 9,
4. Standard scores, PSAT, Verbal and Math, administered grade 10.

For Group II the SB was administered in the first grade, rather than third grade.

For each of the two groups, correlations were computed between the SB IQs and the respective five criteria. Correlations were obtained also among all the other variables, for each of the two groups. Lastly, the two groups were combined to form a third group (Group III).

Results & Discussion

The predictive validities for the third grade SB were all above .70 (see Table 1). These relatively long term validities compare very favorably with one concurrent validity of .74 between the 1960 SB and the WISC reported by Estes, Curtis, DeBurger, and Denny (1961). For Group II, the correlations between the first grade SB and the same criterial are noticeably lower than for Group I. A simple explanation would point to the possibility that grade one IQs are somewhat less reliable than grade three IQs.

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Longitudinal Evaluation Design

Samuel D. McClelland, New York City Board of Education

The Elementary and Secondary Act of 1965 and the legislation establishing the New York State Urban Education Programs require annual evaluation reports. Very often, because of difficulties in planning innovative programs, the activities of a new program do not get under way until some months of the school year have passed. As a result, the actual program period from pre-testing to post-testing is reduced to six or seven months. When this type of evaluation is repeated annually, one may well wonder if there is not great room for improvement, especially in the sense of service to program improvement.

The obvious remedy is to plan and carry out the evaluation for a longer period. For most programs, a three or four year study is required.

Provided the approving authorities agree to consider the evaluation design as an evolving three or four year plan, the main remaining requirement is engaging an agency to carry out the plan.

In general, it is not appropriate to attempt a comprehensive evaluation of product in the first year of any seriously innovative program. When a new program is first established, it takes time before the processes are fully implemented. Even assuming full or nearly complete implementation of the new program, time is required before the results are amenable to measurement. Clearly, the course to follow is to reserve extensive measurement of educational outcomes until the new program has had a reasonable time to achieve its objectives.

How is the evaluator to isolate the many variables, excluding or discounting the factors not part of the program? How does he assess the efficacy of the various program elements? It is clear not only that the isolation will not be easy; it will never be complete. Sifting cause and effect is difficult, and must involve a measure of judgment.

The conduct of a longitudinal study requires a heavy investment of research personnel and resources. To carry the investigation for several years necessitates larger samples, exhaustive individual subject data collection and a large data bank.

Perhaps the outstanding disadvantage of the longitudinal study results from the effects of pupil mobility, especially in large city school systems. Attempts to avoid the problem by very large initial samples is not always possible. Subjects chosen initially must often be restricted in characteristics, if the evaluation design is to be sound. If the evaluator is to take advantage of the precision and scientific improvements in accuracy which flow from complex analysis such as multiple regression techniques and multiple analysis of variance, further constraints are placed on pupil selection. As an antidote to pupil mobility it is sometimes suggested that the pupil be followed, studied and measured as he goes from school to school. A moment's reflection will disclose the serious limits of such a recourse. One of the greatest problems caused by high pupil mobility is the bias of the findings of the evaluation which results. Study and study has made clear that the mobile pupil is certainly different from the stable pupil.

The most valuable type of evaluation disign will strive to combine the best features of the shorter term study with the long range design. The continuing study will combine the unhurried investigation with shorter special substudies.

* *

A Bayesian Procedure for A Posteriori Comparisons in the Completely Random Design

James E. Powers
State University of New York at Albany

The purpose of this paper is to show a straightforward Bayesian procedure for making a posteriori comparisons among treatment means following an analysis of the completely random design.

If the original analysis is performed within a Bayesian framework by specifying prior distributions on an orthogonal set of contrasts of the treatment means and also on a linear function of the treatment

means, representing the grand mean, then prior distributions have been implicitly assigned to all other possible contrasts of the treatment means. Having obtained the posterior distributions on the orthogonal set, elementary matrix algebra allows the derivation of the posterior distributions on the treatment means or any comparison among these means that is of interest.

If the design employs a 2^k factorial arrangment of treatments, considerable simplification is effected in the calculations necessary to obtain the posterior distributions on the comparisons. For other treatment arrangements, the necessary calculations are more numerous. Actually, regardless of the treatment arrangement employed, it is recommended that the analysis be performed by computer due to the number of arithmetic computations necessary. This is no particular disadvantage since the method is quite direct and easily programmed.

Two simple examples will be included. One will employ a completely random design having three treatments to show the general method. The second will use a 2^2 factorial arrangement to illustrate the simplification possible with these arrangements.

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Thursday, November 11 Playhouse II

2:00 to 3:00 P.M.

REPORTING SESSION 2
(Joint Session with National Council on Measurement in Education)

MEASUREMENT, EVALUATION, AND DATA ANALYSIS

CHAIRMAN:

David Kleinke, Syracuse University

PAPERS:

Censored Normal Distributions in Educational Data

Donald F. Burrill
The Ontario Institute for Studies in Education

In educational contexts data are frequently encountered that exhibit a pronounced skew, sometimes called a "ceiling effect" or "basement [floor] effect", which may be ascribed to the fact that a test (or other instrument) is too easy or too hard for the sample of persons to whom it was administered. Often such data may be expected to represent an underlying variable which is normally distributed with unknown mean and standard deviation. A graphical method is presented whereby, under these circumstances and reasonable assumptions, the parameters of the underlying distribution may be estimated; an algebraic method is also discussed. The method is shown to be useful for the following purposes:

(1) descriptive statistics for such data;

(2) inferential analyses, when the unit of statistical analysis is a group of individuals rather than a single observation or datum;

(3) as a by-product, extending the effective range of measurement instruments.

A. Problem: Given strongly skewed data, such as those resulting from pronounced "floor effects" or "ceiling effects", which may reasonably be supposed to represent a censored (as distinguished from truncated)* normal distribution, to devise a method for estimating the parameters of the underlying normal distribution.

B. Methodology: Graphical and algebraic analysis.

C. Results: A graphical method is presented and discussed whereby, under reasonable assumptions, the underlying parameters of the assumed distribution may be estimated. Extensions are discussed for the case where one may prefer to assume a Student's t, rather than a normal distribution. An equivalent algebraic method for estimating the parameters is also discussed. The methods are useful for the following purposes:

(1) obtaining descriptive statistics for skewed data;

(2) inferential analyses, when the unit of statistical analysis is a group of observations (whose distribution within the unit is skewed) rather than a single observation or datum;

(3) as a by-product, extending the effective range of measurement instruments.

*In a truncated distribution, all observations which fall (or would have fallen) below (or above) a limiting value are missing from the data. In a censored distribution, these observations are present, but take on a value close to that of the limiting value.

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A Formative Evaluation Model for Classroom Instruction

Ronald K. Hambleton and William P. Gorth
University of Massachusetts
and
Robert P. O'Reilly
New York State Education Department

The purposes of this paper are twofold. The first is to describe a formative evaluation model known as Comprehensive Achievement Monitoring, designed primarily to provide a means for evaluating the effectiveness of classroom instruction. The second is to report how the model was used recently to evaluate a ninth grade science program.

A highly desirable feature of the model is that it can be readily adapted for evaluating instruction in nearly all of the instructional models currently being advocated for schools. Components of the model include the following:

1. The definition of curriculum with behaviorally stated objectives,

2. The writing of test items to measure the course objectives,

3. The development of a longitudinal testing program incorporating the notion of item-examinee sampling,

4. Reporting of test results to teachers and students on a regular basis, and

5. Procedures for the interpretation of test results by evaluators, teachers, and students to aid in decision-making as it relates to instruction and curriculum.

Particularly important for the success of the evaluation is the availability of a computer. Seldom, if ever, would many of the more interesting analyses be done without it, because of the computational difficulties that are involved.

A sample of the output which is available after each test administration is a student's test scores on all previous test occasions and an indication of which objectives on the current test he has mastered. The teacher also receives a complete history of each student's test performance as well as information concerning the performance levels of indicated subgroups of individuals on previously specified subsets of the objectives on all previous test occasions.

During the 1970-71 school year, the model was used to evaluate an individualized instruction program in ninth grade science at a large high school in New York State. Our goals were to provide information to students on a regular basis concerning their progress, to provide information to teachers on the progress of each student, and to report the results of the testing to the teachers at regular intervals in a way which could be used to identify parts of the program which needed improvement. Various problems which were encountered in the evaluation study, the procedures, and the general recommendations for improving the program and the information on which those recommendations were based are reported in the paper.

* *

The Effect of Order and Rater Ability on Essay Grades

Jan Foucar and Stanley S. Jacobs
University of Pittsburgh

A. Problem

The mean grade assigned by student graders to an essay was investigated as a function of two variables: (1) the essay's position in a group of essays (first third, second third, and third third); and (2) the ability of the grader, as defined by course grades in the

field represented by the essay. It was hypothesized that student graders, who, due to lack of experience, often lack a mental standard of quality with which to compare an essay, tend to assign average grades to the first few essays in a group and use these as a frame of reference from which to grade up or down on the rest. Also, it was hypothesized that more able raters would assign lower grades.

B. Methodology:

1. Subjects
Raters were 12 graduate students in educational research, divided into two groups of high and low ability by course grades in statistics.

2. Procedure
A random sample of 12 essays was drawn from a pool of 46 essay responses to an introductory statistics test question, after all responses were stratified on the basis of general quality. These 12 essays were placed in a random sequence and separated into three groups: Group A consisted of the first four essays; Group B of the second four; and Group C of the last four. Three orders were then formed so that each group appeared in the first third once: Order I-A, B, C; Order II-B, C, A; and Order III-C, A, B. Sets of essays were randomly distributed to the 12 graders, so that four graders received Order I, four received Order II, and four received Order III. The essays had been placed in individual envelopes and raters were told to grade the essays one at a time for quality of content, on a point scale from 0 to 100. When this was completed, they were allowed to go back and change any of the grades they had assigned, showing each change that was made.

3. Analysis
Initial grades assigned were analyzed using profile analysis, with two levels of rater and three levels of order. The magnitudes of grade changes were similarly analyzed. The frequency with which changes were made, as a function of rater ability, type of change, and segment of the 12 essay series, was investigated using a multi-dimensional x^2 analysis.

C. Results and Conclusions:

All effects, with the exception of a rater-ability by type-of-change interaction in the x^2 analysis, were statistically non-significant. This was attributed primarily to a lack of power in the statistical tests employed. A graphic and tabular inspection of the data indicated the utility of further research involving these variables.

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Thursday, November 11 Playhouse II

Dimensions of Attitude Toward School of Children in Elementary Grades and as Correlates of Achievement

Virginia Z. Ehrlich
Board of Education of the City of New York

PURPOSE

To develop an inventory of attitudes toward school for elementary school children in an urban population, and to explore the dimensions of the attitude domain.

METHODOLOGY

Instrument. Definition of the construct was obtained from an analysis of 431 compositions written by pupils of comparable background to the group studied. Likert-type items (120) were derived from these compositions.

Subjects. There were 886 pupils in 35 classes involved in the factor analysis, and 1053 pupils in 52 classes for the validation study, for four grades, 3 to 6. Eight New York City schools participated.

Analytical Methods. Seven factor analyses of the items were computed for four grades, two sexes, and the total group. A second-order factor analysis of the scores for the twelve derived scales was also obtained, and this was repeated for a validation group. Evidence of construct, factorial, and concurrent validity was obtained.

RESULTS

The factor analyses yielded 31 to 36 "significant" factors, which were reduced to 12 functional dimensions of attitude, described by scales having from 3 to 18 items. The 12 dimensions were moderately independent of each other, but the dimension of generalized negative affect had substantial correlations with all others.

A second-order factor analysis of the scores on the twelve scales produced three primary dimensions. Cross validation with a second population yielded similar results.

Significant correlates of achievement, which may be obscured by global scores, were identified by scores based on first-order dimensions of attitude. Generalized negative affective reactions to school, interpersonal relations with teachers and classmates, and perception of own behavior yielded significant correlations with reading achievement. An inverse relationship between achievement and generalized positive affect for schooling was obtained.

Reliability in terms of internal consistency and stability was good, even for scales with few items.

Attitude toward school was found to be a multidimensional construct, with dimensions at two levels. Uniform scales may be developed to satisfy sex-role differences, but the structure of the attitude toward school changes as children mature and grade differences must also be considered. Key periods of such change are at the end of grade 3 and at the end of grade 6.

Use of scores based on first-order factors of attitude toward school may reveal significant correlates of school achievement, which global scores used in most attitude studies tend to obscure. The importance of the subject's perception of the attitude construct being measured was implicit in the study.

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Thursday, November 11 — New Lobby 2

3:45 - 5:15 P.M.

REPORTING SESSION 3

CHAIRMAN:

Ruth Salter, New York State Education Department

PAPERS:

A Measure of Teacher Perceptions of the School System's Supportiveness of Change

Elaine Douma, New Jersey Public Schools and
Mary B. Kievit, Rutgers University

Purpose:

The purpose of this paper is to describe the development of a scale to measure teacher perceptions of the supportiveness of the school system to change.

Method:

Areas within the situational field through which support or lack of support for change might be communicated were identified from a review of related literature. A Likert-type scale of 26 items was developed, with the content of items related to these areas. The scale was pre-tested with a random sample of 30 high school teachers. Pre-test results were analyzed to determine item discriminating power, and scale reliability. The split-half reliability coefficient corrected by the Spearman-Brown was .82. Several items with low discriminating power were revised.

Data were obtained from a sample of 129 home economics teachers in New Jersey, constituting 82 percent of the representative sample drawn. Each was asked to respond to the PSSC scale, and each was interviewed to obtain information about adoption of wage-earning emphases in home economics. Since this was incorporated into a larger study, other data were elicited during the interview but are not pertinent to this paper. The 129 respondents were dichotomized into adopter and non-adopter categories based upon reported adoption of wage-earning emphases and discriptions to substantiate the report. PSSC data were then analyzed to ascertain whether significant differences occurred between the two groups, as a measure of the validity of the scale. Scale reliability was determined also as was the discriminating power of each item.

Findings:

The corrected split-half reliability coefficient was .91. The discriminating power of each item approximated that found on the pre-test. Evidence supported scale validity in that those teachers categorized as adopters had a mean PSSC score of 88.43 compared to a mean score of 77.6 for non-adopters. The difference was statistically significant at the .01 level with t = 3.0.

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Characteristics of Adopters and Non-Adopters of a Curricular Innovation

Mary B. Kievit, Rutgers University

Purpose:

To ascertain whether it is possible with selected variables to discriminate adopters from non-adopters of a curricular innovation, thus identifying criteria for selecting target populations most likely to respond positively to diffusion efforts.

Method:

Utilizing theoretical generalizations from Rogers work, Diffusion of Innovations, 1962, variables were included for measurement which related to: personal and professional characteristics of teachers, the innovation, i.e. incorporating wage-earning emphases, and its adoption. A sample of 129 home economics teachers in New Jersey were interviewed, constituting 82 percent of the representative sample drawn. These 129 were dichotomized as adopters and non-adopters; 33 and 96 respectively, based upon reported adoption of the innovation, and, substantiated by description. Procedures included analysis of mean scores, proportional variations, tested for significance with chi square, multiple regression and discriminate analysis for two groups.

Findings:

Adopters more so than non-adopters perceived themselves as highly effective teachers, perceived the school system as being supportive of change, reported higher satisfaction with supervision and adult relationships on the job; perceived the community as valuing the innovation, had more positive attitudes toward vocational education, and saw themselves as opinion leaders. A multiple R of .50 showed eight variables accounted for 25 percent of the variance. Discriminate analysis showed that it was possible on the basis of 19 variables to discriminate adopters from non-adopters.

Conclusions:

It is realistic to believe that with further research, it will be possible to increase the effectiveness of diffusion efforts by selecting a target population most likely to be responsive.

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Thursday, November 11 New Lobby 2

Is There A Need For A Course In Creativity In Teacher Education?

Madan Mohan, State University College at Fredonia

Problem:

Based on the belief that "creativity and readiness for change has vital significance in a time like ours, because of man's pressing need for an adaptive, integrative outlook in facing problems and conditions for which there are no patterns or precedents," the investigator tried to assess the need for a course in Creativity in Teacher Education.

Purpose:

The study was undertaken by the investigator to survey the opinions of educators, teachers, etc. to establish or to reject the need for a course in creativity in Teacher Education.

Methodology:

Many relevant sources were used to gather evidence. They were: (1) Research literature and other relevant documents; (2) Survey of local faculty thinking; (3) Writing to Researchers and Teachers in this Area; (4) Administration of Need Assessment Sheet to Student Teachers; (5) Administration of Need Assessment Sheet to Teachers in Schools; (6) Results of Inservice Creativity Workshops.

Results:

Analysis of evidence gathered overwhelmingly established the need for such a course.

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Individual Versus Group Testing of Children's Creativity

Thomas M. Edwards, Boston University

Guilford and colleagues have administered the Uses Test of Creativity under group conditions having short time limits. Their approach has resulted in scores which are badly confounded with I.Q. and which do not correlate well with scores on similar creativity tests (Wallach, 1970). Wallach and Kogan (1965) have administered the Uses Test individually under time-free conditions. Their approach has resulted in scores which are reasonably independent of I.Q. and which correlate reasonably well with similar measures of creativity. The individual time-free procedures used by Wallach and colleagues were, however, very cumbersome to administer. Edwards (1970) administered the Uses Test under group conditions where each student could take as long as he wished. In a study of sixth-grade urban students creativity measures intercorrelated reasonably well, and were independent of I.Q. The students also took longer and did somewhat better than students tested under time-free individual conditions in the same study.

To determine if Edwards' findings would generalize to other grade levels and social classes, two classrooms were tested under individual-dialogue conditions and two were tested under group-written conditions in first grade, third grade, and fifth grade suburban classrooms. Under either condition, a student could take as long as he wished. The tests were scored for fluency, originality, and time taken. The results will indicate (a) how independent these measures are from I.Q.; (b) how well the measures of creativity intercorrelate; and (c) whether students at each grade level concentrate longer and score higher under individual-dialogue or group-written conditions.

The present study is being completed. Copies will be available at the convention or upon request.

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Humanities and the Educator: A Seminar in Creativity

J. Donald Herring, Harry Randles, and M. Kathleen Zillioux
Syracuse University

Problem:

Is it possible to construct a learning atmosphere which would develop creative skills in its participants (i.e. educators)?

Purpose:

The purpose of the study was to determine the degree to which a concentrated experience in creative activities and exposure to the humanities would move participants toward divergent rather than closed thinking, open rather than closed approaches to tasks, and creative rather than stereotyped expression.

Methodology:

A. Design and Instrumentation: The seminar participants were randomly divided into two groups: A pre-test-post test group (Group I: N = 11); and a post test only group (Group II: N = 11). Prior to the seminar, Groups I and II were asked to respond to two open-ended questions related to creativity. In addition, Group I responded to the following: (1) Word Association Test, (2) Uses for Things Test, (3) Personal Opinion Questionnaire, (4) Art Values Inventory. Group II responded to a similar series of instruments which were not used for analysis. At the conclusion of the seminar, both Groups I and II were asked to complete the four data-gathering devices and to respond once again to the two questions about creativity.

B. Treatment: A two-week Humanities Seminar was conducted at Syracuse University in August 1970. Details of the Seminar are discussed at length in the paper.

C. Analysis of Data: The analysis of data is purely descriptive in nature. Tables are used to display comparisons. A series of categories were developed for the open format questions. Frequency of responses are discussed.

Results:

1. There was a difference in participants' manner of expression from pre to post in the open format questions related to creativity.
2. Based on pre-post data, participants displayed more diversity and imagination following the seminar.
3. Given the freedom to become creative without being criticized, participants demonstrated evidence of creativity and imagination beyond their own expectations.
4. There was an increase from pre to post in the values attributed to arts expressed by the participants.
5. There was a slight increase in value choices based on pre-post comparison.

Addendum:

In addition, format, design, and results of the summer 1971 Humanities Seminar will be discussed. The relationship between creativity and managerial effectiveness, a subsequent study presently under way, will also be discussed.

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Thursday, November 11 T.V. Room

3:45 - 5:15 P.M.

REPORTING SESSION 4

CHAIRMAN:

Guy D. Spath, New York State Education Department

PAPERS:

The Relationship Between Self-Concept and Intelligence Among Institutionalized Juvenile Delinquents

Irene Strum and Edward J. Mruczek
Manhattan College

Research has suggested that self-concept may be a factor in an individual's achievement and non-scholastic behavior. However, the relationship between self-concept and intelligence among delinquents has not been explored to any extent.

The purpose of this study was to investigate the relationship between self-concepts of institutionalized male juvenile delinquents and their intelligence. It was hypothesized that more intelligent delinquents would have more realistic self-concepts than lower intelligent delinquents.

The subjects in this tudy were 45 randomly selected male delinquents between 13 and 17 years of age in a private residential treatment center. Intelligence quotients obtained from the WISC and WAIS were used to determine intelligence. Boys with IQ's between 95 and 100 were eliminated from the study. Self-concept was measured by the Piers-Harris Self-Concept Scale.

The low IQ group did not differ significantly from the high IQ group in self-concept ($t = .93$). The findings did not support the hypothesis that more intelligent delinquents would have more realistic self-concepts than less intelligent delinquents.

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Thursday, November 11 T.V. Room

Gain in IQ Correlated with Later Performance on a Standardized Achievement Test

Michael B. Sewall, Mohawk Valley Community College
Philip D. Archer, Wake Forest University

Problem or Purpose:

The purpose of this study was to investigate if a relationship exists between gain scores on standardized intelligence tests and future performance on standardized achievement tests.

A study such as this is of importance for at least two reasons. First, compensatory programs which use IQ gain as their criteria for success are prevalent throughout the literature.

Secondly, the methodology used for determining the gain scores is one which the authors found seldom implemented in the literature.

Methodology:

The population at this study totaled 1,235 original subjects of the Di Lorenzo, "Prekindergarten Studies." The sample comprised those students for which the investigators were able to determine a pre and post test score on the Stanford-Binet, and recorded scores on the New York State Pupil Evaluation Program, reading section. This gave us a sample of 405 Ss.

The Deiderick technique was used for determining the gain scores. This technique, the investigators felt, resolved the important question of regression in the gain scores.

Eight correlations were then computed

(1) absolute gain - P E P

(2) corrected gain - P E P

(3) PRE-POST SBIQ

(4) PRE SBIQ - P E P

(5) POST SBIQ - P E P

The subjects were subdivided according to IQ on pre-test. The subdivision was 8 IQ points or one-half a standard deviation of a normal population. These cells were also subdivided into experimental and control according to their initial classification. (see table 1).

Thursday, November 11 T.V. Room

TABLE I

Subdivision According to Pre-test Stanford-Binet and Original Classification.

IQ Range	68-75	76-83	84-91	92-99	100-107	108-115
	.22	.49	.18	.29	.30	.06
Experimental	N=15	N=39	N=49	N=87	N=35	N=31
	-.34	.60	.44	.24	.26	.02
Control	N=14	N=21	N=28	N=38	N=22	N=21
	-.08	.55	.29	.28	.39	.17
Overall	N=29	N=60	N=77	N=125	N=57	N=10

(6) correlation overall within each cell

(7) correlation within each experimental cell

(8) correlation within each control cell

Results:

An analysis showed a significant difference at the .01 level between absolute gain and PEP (.13) and corrected gain and PEP (.42).

Nothing unpredicted showed up in correlations 3, 4, or 5.

All of the cells in 6, 7, and 8 showed a positive correlation between the amount of gain and IQ except the lowest most extreme, which is signigicantly different at the .01 level from all the other groups.

Discussion:

The importance of this study is not as a defense for educational programs designed to raise a child's IQ, but rather the fact that a correlation does exist between gain in IQ and achievement test scores. For too long, educators have lived with the misrepresented knowledge that no such correlation exists.

* *

Thursday, November 11 T.V. Room

Development of Selection Criteria for Elementary School Principals of Inner City Schools

Deena Teitelbaum, Board of Education of the City of New York

The Problem: One of the prime objectives of the Board of Examiners is to select the ablest school administrators available, administrators who can serve as heads of schools which seek to meet the individual needs of pupils in the diversified communities of New York City, especially those who live in the inner city. This objective is urgent in the light of greater recognition of the need for leadership in the inner city, of increasing demands for public accountability of educational leaders, and for community participation in the choice of school leaders.

The urban crisis as it affects education puts a premium on administrators who are capable of leadership essential for the professional growth of teaching and para-professional personnel in inner city schools, for effecting meaningful involvement of the school with the community and for its resources, and for exercising the administrative and supervisory functions necessary for the development of a creative learning environment for all children in the urban setting but particularly for disadvantaged children, most of whom are to be found among the city's ethnic minorities.

To improve the process of selection of outstanding educational leaders it is necessary to: a) Assess past selection procedures; b) Develop new criteria for selection (this study); c) Develop selection procedures based upon newly defined selection criteria.

This study will concern itself primarily with the development of criteria for selection of elementary school principals for inner city schools using New York City as the prototype for other large urban centers.

Methodology: The questionnaire technique was utilized. This technique was chosen because of the nature of the data necessary to answer the problem posed. In addition, the questionnaire provides wide coverage for a minimum expense in money and effort. It reaches persons who are otherwise difficult to contact and permits selection of a large and representative sample. The questionnaire was designed to elicit the personal and professional characteristics of the successful elementary school principal.

Population Selection: Definition: It is the intention of this study to involve two basic populations; professional educators and community representatives. For the purpose of this study, professional educators will be limited to: District Superintendents, Principals, Assistant Principals, Teachers, School Secretaries and Professors of school administration and organization. For the purpose of this study, community representatives will be limited to: Board of Education, Local School Boards, Parents Organizations, Community Corporations and Planning Committees.

Sampling Design: A ten per cent stratified multi-stage random technique was utilized. As a means of increasing precision and representativeness, stratification of the sub-populations defined above was utilized.

Analysis of Data: Content analysis was used. Quantitative results in the form of numerical frequencies for each of the categories developed were converted into rank order schema for each of the sub-strata in the population sample.

In addition to analysis by personnel sub-strata in the population sample, an analysis of the data was made by a community or district approach. In this case, the responses from all the listed personnel within a specific community (e.g., parents, school board, teachers, secretaries) was viewed as a totality and compared with other communities in the population. These data will support or reject the situational approach to the conceptualization of leadership. Do the different communities within the City of New York perceive the "successful" principal with the same set? Does each community perceive the "successful" principal uniquely? In addition to analyzing the data by sub-strata and category and by community and category, strata were combined in order to view the totality of responses. The process of combining the strata enabled the researcher to effectively factor out common characteristics of successful elementary school principals.

Conclusions: All of the data have been collected and are currently being analyzed. It is expected that conclusions will be reached by September 1971.

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Conformity in Appearance and Success in School

Laura D. Harckham and Jacquelyn K. Gilbert
Manhattan College

The problem of conformity, which in its broadest sense is the problem of social influence, is of central concern in contemporary society. There has traditionally been a disagreement between young boys and the significant adult others in their lives over the importance of a conforming appearance and its relationship to school. Recently the argument has taken on ideological overtones. Observers of the educational process have met the strongly held convictions of many teachers and administrators that the appearance of children in some way influences the learning process. The convictions run counter to equally strongly held opinions of other professionals that the child who expresses nonconformity in his personal style is among the most intelligent, creative, and successful of students.

Thursday, November 11 T.V. Room

The purpose of this study was to explore the relationship between conformity to community norms in appearance and the achievement and conduct (school success) of early adolescent boys. The hypothesis was that there is a positive correlation between conformity to community norms and school success of seventh grade boys.

A random sample of 56 seventh grade boys in a lower- to upper-middle class community was administered an appearance scale which had been developed in the community. The instrument was a picture scale showing five hair styles and five clothing styles sketched from the photographs of boys, using the Sears catalog, the New York Times children's clothing section, and the Village Voice as source material. To establish community norms for these scales, they were given to the faculty of a neighboring school. The substantial agreement of the teachers as to the expected appearance of seventh grade boys tended to validate the range and narrowed the normative expected appearance. Next the scales were used with a sample of more than 100 Saturday shoppers at a local shopping center. As with the teachers, there was agreement that three clothing and hair styles were acceptable, while two of each were not.

The responses, which were the boys' perceptions of their appearance, were correlated with half year grade point averages and with a conduct rating.

Pearson r's were computed, and negligible correlations (.08 for conformity and grades; .07 between conformity and conduct) were found, leading to the conclusion that the appearance of boys bears no relationship to the quality of their learning or their behavior in school.

* *

Compensatory Education and Its Effect Upon the Self-Concept-of-Academic Ability of Underprivileged Black and White Pre-College Students

Henry D. Olsen, Ohio University

A. INTRODUCTION:

The symbolic interaction theory of learning, with respect to the development of an individual's self-concept, is based upon the theoretical works of Cooley (1909) and Mead (1934). Brookover (1961) has isolated the symbolic interaction theory and applied this theory to the educational setting by measuring an individual's self-concept-of-academic ability (hereafter referred to as SCOAA). Brookover (1964) concludes that:

(1) Persons learn to behave in ways that each considers appropriate to himself.

(2) Appropriateness of behavior is defined by each person through the internalization of expectations of "significant others".
(3) The functional limits of one's ability to learn are determined by his self-conception, or self-image, as acquired through symbolic interaction.
(4) The individual learns what he believes "significant others" expect him to learn in the classroom and other situations.

B. OBJECTIVES:

This research utilizes Brookover's social-psychological theory of learning by evaluating the level of SCOAA of black and white pre-college compensatory education students (hereafter referred to as CES), and the effect of compensatory education upon this student's academic self-concept. It also identifies and ranks the "significant others" (SOs) and "academic significant others" (ASOs), and changes in identification and ranking of SOs and ASOs as a result of exposure to a compensatory education program.

The questions answered are:

(1) Is there a significant change in a student's SCOAA as a result of compensatory education?
(2) Is the level and for change in a student's SCOAA significantly different for black and white CESs?
(3) Is there a significant difference in whom black and white CESs identify as SOs and ASOs?
(4) Is there a significant change in SOs and ASOs as a result of compensatory education?
(5) Is there a significant difference in the student's SCOAA when he compares himself with another CES? When he compares himself with a RMS?

C. METHODOLOGY:

a. Sample: One hundred twenty one (121) underprivileged black and white New York State high school graduates, or holders of New York State Equivalency Diplomas, who entered a compensatory education program at State University College at Buffalo in September, 1968.

b. Instruments: The subjects responded to the Self-Concept-of-Academic Ability Scale, the Significant Others Tests and the Academic Significant Others Test upon entrance into the compensatory education program in September, 1968, and upon completion of their compensatory education program in May, 1969. All instruments were adapted from Brookover's (1961) longitudinal study on self-concept and academic achievement. The Brookover scale has coefficients of reproducibility of .95 for males and .96 for females. In addition, the scale has reliabilities calculated by Hoyt's Analysis of Variance of .82, .91, .92, and .86 for males, and .77, .84, .84 and .84 for females.

C. ANALYSIS:

All hypotheses related to SCOAA, SOs and ASOs were tested for significance by utilizing the univariate and multivariate analysis of variance with planned orthogonal comparisons. Classification factors were race (black-white) and sex (male-female). A functioning computer program for univariate and multivariate analysis of variance with unequal subclass frequencies by lease squares was utilized. Rejection level was set at .05 for all hypotheses.

D. RESULTS:

As a group the CES had a significant positive change in SCOAA as a result of compensatory education. However, when the variable of race is considered there was no significant change in SCOAA as a result of compensatory education. Thus, even though the CESs had a significant positive change in SCOAA, black and white students had as little, or as great, a change in SCOAA. There was also a significant positive change for males (.92) and females (.36) in SCOAA after 1 year in compensatory education.

In the pre-test the CESs identified parents, relatives, friends, offspring, teacher, spouse and self respectively, as SOs. As a result of compensatory education there were significant changes in offspring, friend, teacher, spouse and self, but no significant changes in parents and relatives as SOs.

As ASOs the CESs identified parents, friends, teachers, relatives, offspring, spouse and self respectively. At the post-test there were significant changes in self, spouse, offspring and relatives, but no significant changes in parents, friends, and teachers, as ASOs.

E. CONCLUSIONS:

As a result of exposure to compensatory education there was a significant positive change in self-concept-of-academic ability for compensatory education students in general, as well as for blacks and whites. Males and females also had a significant positive change.

The students identified parents, teachers, relatives, friends, offspring, spouse and themselves as significant and academic significant others. There were significant changes in offspring, friends, teachers, spouse and themselves as significant others, and themselves, spouse, offspring and relatives as academic significant others as a result of compensatory education.

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Thursday, November 11 T.V. Room

A Comparison of Self-Concept-of-Academic Ability of Disadvantaged Rural and Urban Intermediate Grade Children

Henry D. Olsen, Ohio University
Donald E. Carter, SUC at Buffalo

INTRODUCTION:

The symbolic--interactionist theory of self--concept development is based upon the theoretical works of Cooley (1909) and Mead (1934). Briefly, general theory states that self--concept is that organization of qualities that the individual attributes to himself, with the conception of himself emerging from social interaction which in turn guides, or influences, the behavior of the individual.

Brookover and associates (1959) have superimposed the symbolic--interactionist theory of learning to the school learning situation. Brookover (1964) concludes that:

(1) Persons learn to behave in ways that each considers appropriate to himself.
(2) Appropriateness of behavior is defined by each person through the internalization of expectations of "significant others".
(3) The functional limits of one's ability to learn are determined by his self-conception, or self--image, as acquired through symbolic interaction.
(4) The individual learns what he believes "significant others" expect him to learn in the classroom and other situations.

Brookover (1965) has also investigated the nature of self-concept and its effects upon the school achievement of students enrolled in grades seven through twelve. Brookover relates that:

(1) Self--concept--of--ability is a significant factor in achievement at all levels, seventh through tenth grades.
(2) The perceived evaluation of significant others are a major factor in self--concept--of--academic ability at each grade level, eighth through tenth.
(3) Changes and/or stability in perceived evaluations of significant others is associated with change and/or stability in self-concept.

OBJECTIVES:

This research utilizes Brookover's social--psychological theory of learning by evaluating the level and/or differences in self-concept--of--academic ability of rural and urban disadvantaged children enrolled in grades four, five or six. This research focuses upon the following research questions:

(1) What is the level of self--concept--of--academic ability of disadvantaged rural and urban children enrolled in grades four, five or six?

(2) Is there a difference in the level of self--concept-of-academic ability of disadvantaged rural and urban children enrolled in grades four, five or six on the basis of sex?

METHODOLOGY:

a. Sample:
The rural sample consists of two fourth, fifth and sixth grade classes (150 students) in the Nelsonville-York School District, Athens County, Ohio. The urban sample consists of two fourth, fifth and sixth grade classes (180 students) in the Buffalo School System, Buffalo, New York.

b. Instrument:
The rural and urban subjects were read the Self--Concept--of-Academic Ability Scale in June, 1971. The Self--Concept--of-Academic Ability Scale was adapted from Brookover's (1961) longitudinal study on self--concept and academic achievement.

c. Analysis:
All hypotheses were tested for significance by utilizing the univariate and multivariate analysis of variance with planned orthogonal comparisons. Classification factors were geographical location (rural--urban), grade level (4,5, or 6), and sex (male-female). A functioning computer program for univariate and multivariate analysis of variance with unequal subclass frequencies by lease squares was utilized. Rejection level was set at .05 for all hypotheses.

RESULTS:

(Results of the study are now being analyzed and will be submitted with the final draft)

SIGNIFICANCE OF STUDY:

The significance of this research is threefold:

(1) Brookover (1965) has illustrated that the constructs from the symbolic interaction theory is relevant to understanding the academic achievement of students in grades seven through twelve. The application to rural and urban disadvantaged intermediate grade children may provide a basis for substantiating Brookover's hypotheses.

(2) It explores the factor of geographical location and what effect it has upon self--concept--of-academic ability.

(3) It examines the generalability of the basic tenets of Brookover's social theory of learning.

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Friday, November 12 New Lobby I

9:00 -- 10:40 A.M.

REPORTING SESSION 5

CHAIRMAN:

Robert Siebert, State University College at Brockport

PAPERS:

The Orthographic Distinctiveness of Single Letters and Selected Bigrams

James T. Fleming
State University of New York at Albany

Two studies were conducted to probe the validity of letter and work-part configuration cues. Following Zechmeister's procedures used to demonstrate orthographic distinctiveness (OD) for very low frequency 5-letter words (JVLVB, 8, 1969, 754-761), all letters of the alphabet in lower-case form were similarly rated on a 9-point scale by 74 adult Ss. In accord with Zechmeister's findings for words, the structural distinctiveness of individual letters was significantly inversely correlated with frequency of letter use as determined from the (Underwood and Schulz, 1960) U Count norms.

Also in accord with Zechmeister's suggestion that OD of words was directly related to the presence of letters exhibiting above-below mid-line characteristics (b/p, etc.), the 13 highest rated letters in this present study included 9 of these 13 letters allegedly contributing to the structural invariance of the type font; the 13 lowest rated letters included only 4 such letters.

Because Zechmeister also found that mean bigram frequency of the last position in a 5-letter word is the best predictor of OD, the 20 final bigrams found at the extremes of his high and low OD ratings were presented to 33 different Ss who were asked to produce under a timed condition 5-letter words which ended with these bigrams. More than twice as many words were generated for the bigram word-endings rated lowest OD than for the correspondingly highest OD-rated bigram word-endings, easily yielding a significant difference at the .001 level. Type-token ratios computed from the same data also yielded some dramatic differences between the two sets of stimuli, providing some support for this writer's contention that OD may well be more a function of over-all language relatedness than of some one or combination of distinct physical characteristics of a letter or group of letters, particularly when the letters are ordered in presentation.

Suggestions were made regarding refinements in research of this sort, and it was noted that these studies may have some bearing on the teaching of reading, but judgement should be reserved until the results of studies using progressively younger Ss are analyzed.

* *

Conflict of Perceived Interpersonal Values Among Students and Teachers

George J. Posner, State University of New York at Albany

It has been pointed out by psychologists that what is significant in interpersonal situations, such as those found in schools, is not so much actual conflict of values, but, instead, perceived conflict of values. In this context three major problem areas were investigated. The first involved self-perceptions of values: Do teachers and students share self-perceived interpersonal values? The second area involved degree of agreement between self-perceptions and perceptions of the self by others, i.e., "accuracy" of perceptions: Do students and teachers perceive teachers' values in a similar way? Do students and teachers perceive student's values in a similar way? The third area is concerned with conflict of values as perceived by teachers and students: Are the values of teachers and students discrepant as perceived by students? Are the values of teachers and students discrepant as perceived by teachers?

The population studied consisted of the students and teachers at a public high school in a small, depressed urban community. 228 students were randomly selected from a stratified sample. In addition, all 32 teachers with homerooms agreed to cooperate. The Survey of Interpersonal Values developed by Leonard V. Gordon was administered to teachers twice. The first time they were asked to complete the Survey following the standard directions, i.e., in terms of their self-perceptions. The second time they were asked to complete the Survey as though they were their idea of the typical student of that high school. A sample of the students (n = 132) were asked to complete the Survey following the standard directions, i.e., in terms of their self-perceptions. A second sample of students (n = 104) were simultaneously asked to complete the Survey as though they were their concept of the typical teacher of that high school. Means and standard deviations as well as intercorrelations of the profiles for the groups were found.

A high degree of agreement (r = .66) was found between the self-perceptions of the students and the teachers. A high degree of similarity (r = .97) also existed between the teachers' self-perceptions and the students' perceptions of the teachers, i.e., the students

were found to be highly "accurate" in their perceptions. In contrast, the similarity between the teachers' perceptions of the students and the students' self-perceptions was found to be rather low (r = .34), i.e., the teachers were not very "accurate" in their perceptions. A comparison between the students' self-perceptions and their perceptions of teachers' values revealed moderate agreement in interpersonal values. On the other hand, from the teachers' point of view, less agreement (r = .37) existed between their own values (self-perceptions) and their perceptions of students' values.

The study was literally replicated in a Catholic School in the same city with approximately 300 students and 20 cooperating teachers. The results were highly similar to those of the public school study, although more dramatic. For example, the "accuracy" of teachers' perceptions was less (r = .03) as was the similarity of values as perceived by the teachers (r = -.17). Other correlations differed by .03 to .11 from the public school study. The results suggest that a) self-perceived values are fairly homogeneous; b) teachers are less "accurate" in their perceptions than students; and c) conflict in values with respect to teachers and students exists primarily in the eyes of the teachers.

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The Effects of Color Cues as Aids in the Discrimination of Letter Orientation

Lawrence McNally, State University College at Cortland and
Williamina McD. Wollin, Syracuse University

One of the great difficulties encountered in teaching young children letter discrimination is the similarity that exists among the letters of the alphabet. The confusion that arises is especially pronounced with reversed and rotated letters, where the distinguishing characteristic between these letters is not their form, but rather their orientation. For example, the pairs of letters p-q, d-b, all have the same form but differ in orientation. Children have considerable difficulty in discriminating these spatially confusable letters because their differential features depend upon their spatial orientation.

Gibson (1969) maintains that the enhancement of distinctive features in a stimulus display can be promoted by maximizing the number of possible feature contrasts. Since color seems to have a strong attention-getting value for young children, it was hypothesized that discrimination between similar figures, which differ only in their orientation, would be facilitated if the directional components of the figures were emphasized by the use of color.

The nature of the problem under investigation was to see if the addition of color cues would facilitate children's ability to discriminate between figures which are similar in form but different in orientation, by increasing the distinctiveness of the salient features of the figures.

The Ss were 42 nursery school children who were screened for prior knowledge of the discriminanda under investigation. They were randomly assigned to three treatment groups: Similar Color Condition (SCC); Contrasted Color Condition (CCC); No Color Condition (NCC). Each group was exposed to four tasks: A Warm-Up Task; Two Training Tasks; A Transfer Task. During each task the Ss were exposed to two discriminanda, which were presented automatically in the aperture of a Hunter Cardmaster. In the training tasks each group had to discriminate between two sets of figures, which were similar except for their orientation: a U figure rotated 90° to the left VS. one rotated 90° to the right, and the lower-case letters b and d, or p and q.

After exposure to the training tasks, each group was exposed to a transfer task to determine whether they were responding to the color itself, or to the directional differences of the figures. The task consisted of presenting the S with a different pair of spatially confusable letters than had been presented in the training tasks. These letters, d and b, or p and q, were presented without the aid of color cues.

Analysis of the results was based on the number of trials to criterion. A Kruskal-Wallis one-way ANOVA indicated a significant difference at the .001 level among the groups for both training tasks. Post hoc procedures revealed that on both training tasks, the CCC group performance, when compared with the SCC and NCC group performances, was significantly different at the .05 level. The results of the transfer task indicated that the Ss were apparently responding to the color cues and not the directional difference of the stimuli.

Overall the findings indicate that contrasted color cues direct the S's attention to the distinctive features of the letters by making each letter unique in appearance and thus identifiable from its mirror image. The results suggest that the use of color as an aid in perceptual learning should be explored especially in the teaching of initial letter discrimination to young children.

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Effects of Children's Expectations on Comprehension of the Passive Transformation

Cheryl J. Gowie, State University of New York at Albany

Kindergarteners and first graders viewed 12 pairs of pictures and told what they expected to occur. Responses were used in constructing sentences harmonious, neutral, and contrary to expectation. The pictures were shown to a second sample, who heard statements about each set and answered questions based on them. Six statements were active with passive-voice questions (A-P), and 6 were passive with active questions (P-A). Comprehension was higher in the A-P than P-A arrangement. Both arrangements were easier for first graders than Kindergarteners. Performance was best in the harmonious condition, lower in neutral, and worst in contrary. Analysis of variance also disclosed 4 significant interactions ($p < .01$): Grade X Expectation, Sex X Expectation, Grade X Sex X Expectation, and Grade X Sex X Expectation X Order of Presentation.

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The Effectiveness of Concrete nnd Formal Instructional Procedures with Concrete- and Formal-Operational Students

Donald J. Sheehan, State University College at Oneonta

J. Piaget has theorized that cognitive development is ontogenetic and hierarchical. This study was designed to investigate the effects of a concrete and a formal instructional procedure with students who had been classified as being in either the concrete- or formal-operational stage.

This study sought to answer the following general questions:

1. Can children who are classified as being in the concrete-operational stage assimilate concepts that are presented to them through a concrete instructional procedure more effectively than through a formal instructional procedure?

2. Can children who are classified as being in the formal-operational stage assimilate concepts that are presented to them through a concrete instructional procedure more effectively than through a formal instructional prodedure?

The instructional procedures evolved from a set of distinctive features of the concrete- and formal-operational stage to a set of behavioral characteristics for the concrete instructional procedure and the formal instructional procedure.

Students were randomly selected from a population after having been classified as being in either the concrete- or formal-operational stage. After random selection, 15 students from each stage were randomly assigned to one of four experimental conditions. Fifteen other students from each stage were placed in two control groups which received no instruction. A 2 x 2 factorial arrangement involved concrete- and formal-operational students with a concrete instructional procedure and a formal instructional procedure.

In order to determine the effect of the instructional procedure relevant to the four hypotheses, the students in the experimental conditions were administered pre-, post- and post-post-tests. The students in the control groups were administered pre- and post-post-tests at the same time as the students in the experimental condition.

Four general conclusions were made relative to this study.

1. Formal-operational students showed greater achievement than concrete-operational students, regardless of whether the instruction is presented through a concrete or formal mode.

2. Concrete instruction was more effective than formal instruction with either concrete-operational or formal-operational students.

3. Achievement was more durable for the formal-operational students than for the concrete-operational students with either the concrete or formal instruction.

4. Formal-operational students maintained post-test scores of test items designed to investigate the ability to generalize.

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Friday, November 12 Playhouse II

9:00 - 10:00 A.M.

REPORTING SESSION 6

CHAIRMAN:

Theodore Abramson, City University of New York

PAPERS:

An Exploratory Survey of Teacher Job Satisfaction: A Path Analysis

Robert Throop, State University College at Potsdam

Purpose:

The purpose of this research was to examine principals' supervisory style and principal-teacher perceptual differences about the organizational characteristics of their school in an attempt to determine their influence on teacher job satisfaction.

Problem:

The specific questions examined were:

A. Do principals and teachers differ in their perception of the organizational characteristics of their school?

1. If a perceptual difference does exist, does it have an influence on teacher job satisfaction?

2. If a perceptual difference does exist, is it influenced by a particular supervisory style of the principal?

B. Is there a relationship among principals' supervisory style, principal-teacher perceptual difference, and teacher job satisfaction?

Methodology:

This study was designed to examine the influences that the variables of principals' supervisory style, principal-teacher perceptual difference, have on teacher job satisfaction in the natural setting of elementary schools. Fifteen (15) elementary schools participated in the survey with 279 elementary teachers responding to the questionnaire. The questionnaires selected to obtain data concerning each variable were:

A. The Blumberg-Amidon questionnaire: Teacher Perceptions of Supervisor Behavior;

B. Foitler's adaptation of Likert's Profile of a School—Form T;

C. Smith, et. al., Job Description Index.

To analyze the magnitude of direct and indirect influence of these variables, the technique of path analysis was utilized.

Results:

The present study corroborated previous research that indicates principals perceive the organizational characteristics of their school differently than their teachers. This inquiry revealed a tendency for principals to perceive their school organization as exhibiting more participatory characteristics than the teachers of these schools.

Despite the presumed causality linkages to job satisfaction, the results suggested that the combined influence of supervisory style and principal-teacher perceptual difference did not account for a sizable proportion of the variance of teacher job satisfaction. This evidence suggests that other variables may have greater impact on job satisfaction than does supervisory style and principal-teacher perceptual difference.

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Professional Socialization in Teacher Training Programs

Paul R. Dommermuth, State University of New York at Fredonia

This paper reports on the first portion of a comparative study of professional socialization in three teacher training programs. This portion deals with the perspectives staff members develop about the nature of teaching and how this becomes translated in actual components in that of teachers. In future papers these perspectives will be contrasted with those of a cohort of students passing through the programs and a sample of regional school personnel involved in the program either in the supervision of student teachers or in the hiring of the programs' trainees.

The focus of this project is on what the socialogical and social psychological process of professional socialization in education is like and further, how it compares with training in other professional programs. Our conceptualization of these processes views the training staff of these programs as the primary agents of socialization for teachers. Their professional identities and careers are linked inxorably to the programs they develop and the nature of training as students experience it.

The data were gathered using field observations, tape recorded interviews and questionnaires. These data were collected from all of the staff of these three education departments and the liason staff in liberal arts departments.

From these data we are able to develop a three-fold typology of staff perspectives, an overview of their career projections and a composite picture of how most issues in education will be viewed by those with each perspective. The implications of these findings are relevant for teacher training programs, for area schools and the students passing through these programs.

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Occupational Education: A Survey of Secondary School Graduates in New York State

Richard J. McCowan, M. Duane Mongerson, and Donald E. Carter
State University College at Buffalo

Purpose:

The purpose of the study was to analyze the educational and occupational patterns of June, 1969, high school graduates, from occupational vocational education programs in Standard Metropolitan Statistical Areas (SMSA) and in Outside Standard Metropolitan Statistical Areas (OSMSA). The study also included an analysis of student attitudes toward work and toward academic and vocational courses in high school. In addition, the study was designed to develop a sampling model which possibly could be used by the New York State Education Department for subsequent follow ups of occupational education graduates.

Methodology:

The sample for the study was two-stage in nature. Initially, a stratified random sample of secondary schools in New York State classified by size was selected for the study. Schools were also stratified into SMSA and OSMSA categories. From lists of June, 1969, graduates provided by administrators from 128 secondary schools, a stratified random sample of 2,960 graduates was randomly selected with occupational curriculum as a blocking variable. A questionnaire was developed, field tested, and sent to each of the selected S's. After four follow ups, 1,574 (53.2%) of the graduates returned a completed questionnaire.

Specifically, the study was designed to (1) identify the occupational areas in which the graduates were employed; (2) compare that occupational area to the area of high school training; (3) analyze attitudes toward work and their high school program; (4) analyze the reasons why they did or did not pursue a career related to their

occupational program. These objectives and several other objectives were compared with five blocking variables (1) SMSA/OSMSA, (2) sex, (3) race or ethnic group, (4) welfare payments, and (5) occupational curriculum area.

A chi-square analysis of the data was utilized to compare specific differences among the five blocking variables. A one-way ANOVA was used to analyze attitudinal data gathered by a semantic differential.

Selected Findings:

The following findings represent those which the authors felt were most relevant. These are grouped in the following categories. (1) General Information, (2) Employment Patterns, (3) Post-Secondary School Education, and (4) Attitudinal Information. Findings for the semantic differential and the interview data are also presented.

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Work and School Attitudes of Vocational Education Students

Donald E. Carter and Richard J. McCowan
State University College at Buffalo

Problem:

A follow-up study involving a sample of 2,960 New York State occupational education graduates in June, 1969 (entitled Occupational Education: A Survey of Occupational Education Graduates in New York State) was completed by McCowan, Mongerson, and Carter (1971). A major objective of the study was the assessment of attitudes of graduates towards their high school training programs and their jobs. This report analyzes this aspect of the study, which is based on the responses of 1,515 S's to a Semantic Differential.

Methodology:

Three concepts were selected to reflect the feelings of the graduates: 1) "High School Vocational Training is. . ."; 2) "Academic Courses such as English or Science are. . . ."; and 3) "Your feeling toward work is. . . .". Five bi-polar adjectives were selected to determine attitudes toward these concepts. The adjectives were placed on a five point scale and graduates were asked to select the word which represented their attitudes toward each concept. The bi-polar adjectives were: 1) important - unimportant; 2) useful - useless; 3) meaningful - meaningless; 4) practical - impractical; and 5) interesting - dull. A rating of "1" was positive and a rating of "5" negative for each adjective pair. Response set was considered, but judged to be insignificant, due to the small number of responses required. Returns were divided into interview and questionnaire

samples and then combined for comparison of scores on the blocking variables. Concept-adjective pair means and standard deviations were derived for the mailed questionnaire and personal interview samples. Since the range of possible ratings was from one to five, a neutral reaction was reflected by a mean score between 2 and 3. Mean scores over 3 were considered as negative attitudes, while mean score less than 2 were considered positive.

Conclusions:

The graduates responded favorably to all three concepts. However, "Feeling Toward Work" received the most positive ratings. "High School Vocational Training" was second and "Academic Courses" received the least positive ratings. It would be concluded that the attitudes of occupational education graduates toward their educational experience in occupational and academic courses was very positive, while their attitudes toward work was even more positive. Although there were group differences when the blocking variables were considered, these differences were not great. The most meaningful differences appeared to be in the area of residence, curriculum major, and race where some trends did emerge. Graduates living within the SMSA were less positive in their ratings of the three concepts. Distribution and Technical graduates tended to be the least favorable toward the concept "High School Vocational Training" and "Work," while Health and Agriculture graduates were the most positive. Negro graduates were more favorable toward school or they provided the most positive ratings of "Academic Courses." There were no differences in attitudes between welfare and non-welfare recipients and the only sex difference was in the perception of "Academic Courses," where female graduates provided more favorable responses.

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Friday, November 12 Nightwatch Room

10:50 A.M. - 12:15 P.M.

REPORTING SESSION 7

CHAIRMAN:

Raymond Sullivan, Harcourt, Brace and Jonvanovich

PAPERS:

Implications of Measurement Problems of Observational Methods For Performance Based Certification

Theodore Abramson and Helen Spilman
City University of New York

Observation of teachers' and pupils' classroom behaviors will probably be of major importance in the implementation of the concepts embodied in performance based certification. Fortunately, a good deal of observation research and development has been conducted during the past decade and has led to a number of well known observation instruments such as Flanders' Interaction Analysis and Medley and Mitzels' Observation Schedule and Record. These instruments or their adaptations or other carefully developed instruments may serve as a basis for initial applications of observational technology to the problems of performance based certification.

Any measurement instrument, whether paper pencil test or categorization of behavior through "live" observers or video-tape replay, must be evaluated in terms of its reliability and validity. Reliability generally refers to the replicability of the measurement and validity to the degree of correspondence between the measurement and its underlying construct. Clearly then, unless an observation instrument has demonstrated reliability and validity its use in anything but a research context is hardly justified.

However, even assuming observations that are both reliable and valid does not necessarily mean that these instruments can be usefully employed in solving the problems of performance based certification. The basic link that must first be established is that between teacher performance and pupil outcomes. The selection of appropriate criteria of pupil performance is essentially dependent on one's educational philosophy. Research must concern itself with the development of instruments that measure teacher behavior variables which are predictive of pupil performance.

This paper reviews some of the work in the area of observational instrumentation, the problems of estimating their reliability and validity, and discusses briefly a few research studies which should be undertaken so that empirical evidence related to performance based certification can be generated.

* *

The Use of Factor Analysis and Regression Analysis in Examining Construct Validity

Robert K. Gable, University of Connecticut

Purpose:

In a previous paper the construct validity of a modified version of Super's Work Values Inventory was investigated (Gable, 1971). Employing the rationale and procedure discussed in an early paper by Cronbach and Meehl (1955) and most recently by Cronbach (1971), the evidence of construct validity was in the form of correlation coefficients. Using the theoretical orientation on which the work value scales were developed, a priori directional relationships (or the absence of such relationships) between the constructs in question were made and the resulting data examined.

The purpose of the present paper is to extend the earlier work by illustrating the use of factor analysis and regression analysis to examine construct validity.

Methodology:

The modified version the Work Values Inventory, Survey of Interpersonal Values, a high school version of the Study of Values; a normative version of the Edwards Personal Preference Schedule, and the Kuder Preference Record CH-Vocational were administered to 503 high school sophomores in three high schools; two suburban and one rural. Additional classification information consisting of measures of achievement performance (ninth year grades), ability (Differential Aptitude Tests) social class (Warner's classification), and sex were collected from the guidance files. The selected scales on these instruments and the classification variables resulted in a set of 36 predictors to be used with the 14 individual work value scales. The criterion-predictor intercorrelation matrix was factored using image analysis (Harris, 1962, 1964) in an attempt to examine where the work value criterion scales would lie in a factor space in relation to the predictor variables (see Cronbach, 1971). The predictor variables associated with small, but meaningful, loadings on the first two image factors were compared with the predictors associated with the larger regression weights, obtained from a generated regression weight matrix, on each of the separate criterion scales.

Results and Conclusions:

Conceptually consistent correspondences supportive of construct validity were manifest between the predictors with the higher factor loadings and the predictors with higher regression weights on the respective work value criterion scales. These results are suggestive of how factor analysis and regression analysis can be employed along with the more conventional interpretation of the criterion-predictor intercorrelation matrix to examine the construct validity of an instrument measuring psychological traits.

* *

The Factorial Dimensions and Reliability of an Attitude Toward Mathematics Scale

William M. McCook and Robert K. Gable,
University of Connecticut
and
Alfred Tychsen, Greenwich Public Schools

Purpose:

The purpose of this study was to examine the factorial dimensions and reliability of a 26 item Attitude Toward Mathematics scale which was designed for use with elementary school children in grades 3 to 6, and to investigate the feasibility of using the instrument with children in grades 1 and 2.

The Attitude Toward Mathematics scale is a 26 item normative questionnaire which contains 13 positively worded and 13 negatively worded items with content which reflects a feeling or attitude toward mathematics (Suydam and Trueblood, 1970).

For elementary school children in grades 3 to 6, the reported internal consistency reliabilities range .84 to .95 using the 26 items and a total test score. The existence of meaningful subscale scores for the instrument has not been investigated.

Sample and Procedure:

The responses of 229 grade 3-6 Ss, and 130 grade 1-2 Ss were obtained from several upper middle class communities in southwestern Connecticut. It should be noted that different response instructions were used for the first and second grade Ss. Instead of reading the item stems and responding on the Likert scale, the Ss were presented with faces that expressed five moods of agreement and were asked to choose the face which expressed their attitude after listening to the orally presented item stem.

Data obtained for grades 1-2 and 3-6 were submitted separately to both image analysis and principal components analysis using both a Varimax rotation and an Obliquimax transformation in order to obtain the most meaningful dimensions for these particular samples. In addition, alpha internal consistency reliabilities were generated for the resulting dimensions.

Results and Conclusions:

The image analysis followed by the oblique transformation provided the most interpretable results. For grades 3-6, two meaningful though not independent dimensions appeared. The sixteen items in the image pattern matrix which defined the two dimensions (9 items on the first dimension and 7 items on the second), with alpha reliabilities of .88 and .83, suggested subscales of "liking mathematics" and "avoidance of math". The remaining 10 items did not contribute to any interpretable dimensions for this data. It appears that several of these 10 items reflect the universe of content for attitudes toward math for which the item pool was not adequately sampled in developing the instrument.

Further, comparison of the dimensions yielded for the grades 3-6 sample and the grade 1 and 2 sample showed little agreement. In fact, for grades 1-2 the dimensions were not psychologically meaningful.

The data used in this study suggests that for grades 3-6 the instrument provides two meaningful dimensions of attitude toward math. The use of the oral presentation and revised response format for grades 1-2 were not supported. It should also be noted that an examination of grade level means indicated a definite trend toward lower attitudes toward math with increasing grade level.

* *

Collective Legitimacy and Organizational Attachment: A Longitudinal Case Study of School Personnel Absences

R. Oliver Gibson, State University of New York at Buffalo

Problem:

In contemporary society people do much of their work in specialized organizations which use their services and provide income in return; the Industrial Revolution has widened the separation between work and home. As work relationships become less affective and more avoidant, it can be expected that organizational loyalties will become less strong tending toward lower organizational attachment.

The work-organization relationship may usefully be viewed as one of social exchange in which services and rewards are exchanged in accordance with terms of a contract spelled out in terms of rules, regulations, etc. Those terms serve as expectations that set norms of behavior. There appears to be a sort of normative contagion resulting in collective meanings for standards giving collective legitimacy to behavior.

How useful are these ideas in explaining absence from work? Absence is basically illegitimate and needs social sanction. As the norms of absence change, it could be expected that personnel would act more in accordance with that of their immediate group than with their own past behavior. If there is a tendency toward lower organizational attachment, then the frequency of absence could be expected to increase. Since the contract regularly puts a limit to the number of days of absence with pay, it can be expected that absences, as their frequency increases, will decrease in length.

Data:

These ideas were tested in data collected in a suburban school system in the Boston metropolitan area. Data were collected for the years 1928-9, 1948-9, 1958-9, and 1968-9 on the frequency, duration and numbers of days of absence for illness and other reasons. Data were also available on length of service, sex, work, etc. Degree of association was measured by use of percentage, X^2 and gamma.

Findings:

In general the expectations were supported. Throughout the period the rate of frequency increased. While the number of days of absence per person did increase, the duration of each absence decreased. The absence of personnel continuing through a decade was greater at the end than at the beginning; their behavior was more like that of their peers at the beginning and again at the end, than like themselves. The findings are consistent with those of Gadourek in confirming the importance of social variables in explaining absence.

* *

Planning and Management Systems for Occupational Education

Richard A. Gustafson
New England Resource Center for Occupational Education

Problem:

Occupational educators have been required to develop state and local plans through needs analyses and manpower projections. However, existing systems (e.g. Dept. of Labor, Bureau of Labor Statistics, Employment Security) are not congruent with U.S.O.E. program format.

Friday, November 12 Nightwatch Room

Purpose/Objective:

The research objective was to develop and field test instruments which would enable local and state educators to more systematically plan and monitor occupational education programs. These instruments were developed in congruence with U.S. Office of Education codes and guidelines for state plans.

Methodology:

A task force of federal, state, and local educators worked with the researcher to provide insight into the required data for effective program planning and management. The instruments to reflect these requirements were developed and field-tested in a New England metropolitan area. Supply-demand matrices were generated for program planning and student/program instruments were used to provide systematic feedback for program management and evaluation. The entire system has been computerized.

Results:

A generalizable operating system for the planning and management of occupational education programs has been developed. A system such as this provides the tools for in-depth program evaluation.

A systematic management information system is long overdue in occupational education. The new U.S.O.E. commissioner, Dr. Marland, has placed career education as the number one priority of the U.S. office. Evidence to monitor progress toward objectives measuring career education implementation can be compiled using the above described system.

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Friday, November 12 — New Lobby 1

10:50 A.M. -- 12:15 P.M.

REPORTING SESSION 8

CHAIRMAN:

Mary E. Flynn, BOCES Nassau County

PAPERS:

The Relative Effects of an i.t.a. and a T.O. Reading Program on the Acquisition of Expressive Communications Skills by Inner-City Children at the End of the First Grade

Edwin F. Sause, St. John's University

Problem: Inner-city schools have frequently failed to teach black children to read. This failure has frequently been linked with a general failure to use language effectively. The lack of communications skills handicaps the child throughout his school life.

Purpose: This study investigated the relative effects of an i.t.a. and a T.O. reading program upon the acquisition of expressive communications skills by first grade, inner-city students. This study suggested a methodology for measurement of this important aspect of reading and language arts programs.

Design: Incoming kindergarten children in four schools were randomly assigned to treatment within school. The T.O. group received no formal reading instruction. The i.t.a. began the ERCita Early to Read program. In grade one the i.t.a. group continued the ERC program and the T.O. group began the Scott Foresman Multi-ethnic Readers. At the end of grade one written and oral language samples were collected from both groups by means of standard stimuli. The data were analyzed by clerk and computer for degree of fluency, defined as the total number of words and the number of different words used. The significance of the differences between the means was determined by t tests.

Results: The i.t.a. achieved significantly higher mean scores, at the .05 level of statistical significance, on both measures than did the T.O. group. It was found that the i.t.a. program did produce children who were more able to express themselves than their peers in the T.O. program.

Conclusions: ERCita did produce students who were more fluent in expressing themselves than students who had experienced one of the more popular T.O. programs. It is concluded that this i.t.a. program was more effective than this T.O. program. Measurement of these less frequently measured aspects of language achievement have helped identify a possible means to alleviate the handicap of the inner-city child, at least in the area of expressive communication.

* *

The Effect of Pupil Mobility on Reading Achievement at the Third Grade Among Different Ethnic Pupil Groups

Jacob Abramson and George Forlano
New York City Board of Education

Problem:

In view of the recent emphasis on accountability in education and the measurement of accountability in education, one of the factors which the authors felt to be of primary concern was the factor of continuity of school environment in the learning process.

Purpose:

Many factors affecting reading achievement of pupils have been studied, for example, the psychological, social, intellectual and the familial. While these factors are important and should continue to be studied, there should be some attention given to the degree and extent of the influence of the continuity of the school environment on the learning process. The need for such study may be highly relevant in view of the fact that we are dealing with the child as a beginner in school and who is learning a complex process as reading. Both of the latter factors argues for the need of continuity in the school environment.

Objective:

To ascertain if there is a difference in reading achievement among third grade pupils who have been in the same school since the first grade (non-mobile) as compared with those third grade pupils who have entered this school at any time after the first grade (mobile). If there is a difference in reading achievement, is this differential in reading achievement demonstrated regardless of ethnicity.

Methodology:

In September 1967 as part of the New York State Reading Survey, the New York City Board of Education administered to all first grade pupils the New York State Reading Readiness Test. In March 1970 as part of the New York City annual reading survey the Metropolitan Reading Achievement Tests were administered to pupils in grades two through six. By using

third grade class lists of March 1970 and the first grade class lists of September 1967, the non-mobile pupil groups in each school were identified and those pupils who had not taken both the first and third grade reading tests were considered to be mobile for the purpose of this study.

Two methods of treating the test scores were utilized. In the first method the grade score reading achievement of both mobile and non-mobile third grade pupils will be compared with national norms. The second method of treating the test results was to obtain means and standard deviations for the mobile and non-mobile third grade pupils and to apply the "t" test technique of statistical significance to the mean net differences between the contrasted groups. The analysis of the data involved test results on the reading achievement subtest of the Metropolitan Reading Achievement Test taken at the third grade.

Conclusions:

Based on the comparisons made at the third grade, the following conclusion may be drawn:

Regardless of ethnic composition of the groups studied, there is a consistent pattern of higher reading achievement demonstrated by third grade non-mobile pupils than third grade mobile pupils. The difference in reading achievement in favor of the non-mobile third grade pupil groups were statistically significant.

* *

Concepts of Life and Death in Middle Class and Lower Class Preschool Children

C. Hunerberg, R. Formanek and B. Ostrow
Hofstra University

The purpose of the study is to explore the concepts of life and death held by preschool children. The authors postulate that, although preschool children frequently make use of the words "alive" and "dead", they do not comprehend the actual meaning of the words. Piaget attributes this lack of comprehension to a general cognitive immaturity rooted primarily in egocentrism. To this explanation the authors add (1) the influence of the cultural taboos dealing with death and (2) defense mechanisms designed to protect the individual from facing the irrevocability of death. Both these factors impede the acquisition of the concepts and are reflected in the rich religious and mythological explanations of life and death which substitute for the dreaded reality.

The study is relevant and applicable chiefly as a basis for curriculum construction in the sciences for young children and is designed to find means for helping them acquire these concepts.

Procedures:

Piaget's questionnaire "The Concept of Life" was used together with analogous questions dealing with death designed by the authors. In addition, figure drawings on "things alive" and "things dead" were obtained from all children. Analysis of the questionnaires followed classification outlined by Paiget, and by Laurendeau and Pinard. The figure drawings were rated by two specialists in projective devices. Sex and social class were additional variables.

Subjects:

Twenty-five children in a middle class nursery school and twenty-five children in a Headstart program, mean age in both groups being 4 years. Testing was done individually.

Results have not been completed, and can be forwarded to you within 6 weeks.

Curriculum applications are to be discussed.

* *

Panama Pre-School Program

Inez N. Petrie, Hilary Bauman, Thomas A. Petrie and Ronald E. Hull
SUC at Fredonia

The socialization process in modern society is a complex process of the individual in interaction with cultural institutions. Of particular import is the interaction of the child with the school and family. With respect to the child and school, modern society is changing. An aspect of this change is reflected in the increased allocation of resources for pre-school education. These resources in turn make possible changes in the child-family-school interaction and within the school itself. Furthermore, it is obvious that social forces have precipitated a movement to do something about the existing inequality of educational opportunity through reorganization of curriculum and instructional patterns.

Of particular concern is the balance of socialization and skill experiences. With respect to this concern the Panama Pre-School Program provided a fortuitous site to initiate a pre-school evaluation study of a program in which a staff, community, and consultant engaged in the

dynamic process of joining theory and practice. In short, the Panama Pre-School Program report is a vignette case study of a community of decision makers, a school district staff and a noted educational theorist collaborating in educational change.

Purpose:

The purpose of this evaluation was to examine the program with respect to five objectives derived from the conceptual work of Louis E. Raths and Erik H. Erikson. These objectives were:

(1) To demonstrate care for the health and safety of every child.

(2) To persistently share the child's meaning in the communication process.

(3) To create alternatives for children's decision-making.

(4) To use clarification responses in order to stimulate children's thinking about their goals and actions.

(5) To provide an individualized instructional program in which behavior is consistent with the child's purpose.

Methodology:

The methodology is a descriptive case study method. A description of the administrative, in-service training, community involvements, and program patterns are brought to focus with respect to the five objectives.

Findings:

There was considerable evidence that progress was made toward the achievement of all objectives. Most significant was the extent which the interaction patterns between consultant-staff and teacher-pupils appeared to increasingly approximate the "model" behavior.

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Friday, November 12 New Lobby 1

Demographic Statistical Analysis of Clients in Adult Basic Education

Pearl S. Sax, New York State Education Department

Objectives of the Inquiry

1. To review demographic data to better understand adult students in terms of sociological and educational needs.

2. To direct the efforts of adult educators in guiding the program to meet those needs as indicated.

Design, Methods, and Techniques

1. An instrument in the form of a survey to gather data:
   a. demographic
   b. educational
   c. instructional
   d. guidance (problems)
   e. follow-up

2. A pre-service session was held to familiarize professionals utilizing the instrument for use with the client upon entry.

Conclusions

1. The clients in the Adult Basic Education Program in Schenectady represented prime source of labor age 16 to 35 which indicated the need for occupation as terminal objectives. Many are welfare clients who are currently being encouraged to seek immediate employment.

2. The predominance of females with children under the age of five, receiving welfare aid under ADC, have cited problems with baby care. As a result, child care services are indicated and in the process of being developed in order to encourage better attendance.

3. In-depth client identification by reviewing the demographic data to be used in directing the program for the following year in terms of serving individual needs and in helping to achieve individual goals.

4. Student gains have been charted relative to assessment of instructional procedures to reevaluate for future planning.

5. A more concentrated effort in FY 71-72 will be made to utilize guidance services to eliminate the problems of students who have terminated from the program as a result of familial problems, motivational factors, etc.

6. A uniform testing procedure for all students has been acknowledged and will be adapted in FY 71-72 for more purposeful assessment in terms of student, instruction, and program analysis.

7. Federal statistics are urgently needed, specifically in the welfare category relative to skill training for employment.

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Friday, November 12 — Playhouse II

11:15 A.M. - 12:15 P.M.

REPORTING SESSION 9

CHAIRMAN:
Richard Zusman, SUC at Brockport

PAPERS:

Facilitating the Research Function at a Small Institution Through Consolidated Organization: Some Observations and Cautions

Theodore G. Van Istendal, Alfred University

The purpose of this paper is to provide a discussion of alternative organizational patterns for facilitating research at small institutions. Primary reference is made to the institutional research function as it may be organizationally consolidated with other functional areas, i.e. registrar, sponsored research, computer center.

Observations and cautions are offered with respect to various organizational combinations with attention directed to problems related to resource allocation and priorities. Particular concern is expressed that the research function be facilitated, not restricted, by such organizational consolidation. Special emphasis is placed on organizing and centralizing sufficiently to make the research function viable even though such "centralization" may not result in a singular, "full-time" research office, bureau, etc.

It is the intention of the writer to encourage research appropriate to various institutions through alternative organizational approaches. It is suggested that some institutions, depending upon their size and resources, should not attempt to develop single, exclusive research offices. However, a position basic to this paper is that research is more likely to be facilitated if approached with a higher degree of structure than might otherwise be the case in some smaller institutions.

An emphasis is also placed on the utility of external organizational possibilities for maximizing efficiency and productivity i.e. inter-institutional research (consortia arrangements, etc.).

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Friday, November 12 Playhouse II

Perceived Equity at Work and Its Relationship to Absences and Turnover

R. Oliver Gibson, SUNY at Buffalo
Charles A. Planz, Glenview, Illinois Public Schools

Purpose:

The purpose of the study was to determine the relationship between perceived equity, both absence and attrition among early career male teachers. It was assumed that the employment relationship between a teacher and a school could be viewed as an exchange process in which the teacher exchanges his services for various rewards from the school system. In this exchange process, if a teacher perceived that he did not receive nor have the opportunity to receive rewards based on his contributions
1 or performance as a teacher, a situation of perceived inequity would exist. It was also assumed that a high degree of inequity, would be directly related to leaving the teaching profession.

Teachers' and former teachers' perceptions of equity were investigated in two different types of school districts. The school districts were similar in several aspects. Both districts were rapidly growing, located in the same town, had similar student enrollments and socio-economic status of the residents. The districts differed in their rewards structure. Type I district had a low degree of differentiation of rewards for its teachers. Type II district had a higher degree of differentiation of rewards for its teachers. Type I district had a lock-step salary schedule with rewards usually based on length of service and graduate training. Type II district had a staff layering arrangement throughout most of the systems which gave teachers several opportunities for advancement within the classroom in terms of status and economic rewards. These opportunities for rewards or promotion in the classroom were based on a teacher's performance in the classroom. All male teachers who had taught at least five years in both districts, under 35 years of age and were still teaching were termed "stayers". All male teachers who had taught in both districts, under 35 years of age and had left teaching in these systems were referred to as "leavers". Several hypotheses were tested. The first hypothesis attempted to determine if "stayers" in districts I and II perceive a higher degree of equity than do the "leavers" in these districts. The second hypothesis attempted to determine if "stayers" in Type II district perceive a higher degree of equity than "stayers" in district I. Several hypotheses relating teacher absences to equity were also investigated.

Procedures:
The names of all the "stayers" and "leavers" were obtained from the personnel files of the school districts studies. Using a modified instrument developed by Pelz and Andrews, trained interviewers administered the questionnaire via telephone. An 84% response was obtained. Principals of all schools in districts I and II were interviewed to determine the role they had in the informal reward structure in their school. Principals were also asked to rate the performance of the teachers who participated in the study.

Results:
The findings of the study statistically supported the two major hypotheses. "Stayers" perceive a higher degree of equity than "leavers". Also "stayers" in Type I district perceive a higher degree of equity than "stayers" in Type II district. The relationships between equity and absence were in the direction hypothesized although not statistically significant. There was a significant correlation between above average performance as a teacher and perceived equity. There was also a significant correlation between a teacher's certainty of being rewarded for his performance and degree of perceived equity. These findings appeared quite consistent with the concepts on equity presented in the literature.

A reformulation of the study utilizing theories of equity, cognitive dissonance and job satisfaction was designed. Several hypotheses using these theories in conjunction with the findings of the study were formulated for future research.

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High School Students' Preferences for Counseling: Behaviorist Versus Client-Centered Approaches

Arreed F. Barabasz, Richard J. McCowan and Marianne Barabasz
SUC at Buffalo

Problem:
Numerous studies have been completed regarding the characteristics of desirable counselees, as well as the expectations of both counselors and clients regarding the counseling process. Little research, however, has been done on the preferences of clients with respect to counseling procedures or the counselor's professional discipline. Both the research design and procedures of many counseling studies in the area of client preference could be criticized, due to reliance on correlational or sample survey techniques and questionnaire method of data collections. Generally studies in the area lack replicability, since clients were not exposed to identical treatments, but merely were counseled on an individual basis within loosely defined categories, such as "non-directive" or "client-centered". This investigation compared the preference of high school students for behaviorist or client-centered counseling within an experimental setting.

Methodology:
A college counseling center director and three doctoral level graduate students produced nine role played audio tape recordings of "behaviorist" and "client--centered" counseling sessions using ninth and tenth grade high school students as clients. Each tape was evaluated independently by the director and the graduate students. Two behaviorist and two client--centered tapes met the unanimous approval of the raters.

S's consisted of ninth and tenth grade students enrolled in the Campus School, State University College at Buffalo (N=61). S's were randomly divided into four groups, each of which were simultaneously exposed to one of four treatment tapes. Upon termination of the treatment, S's were asked to evaluate the counseling sessions by means of a semantic differential on a continuum rating basis by seven bipolar adjectives. Multivariate analysis of variance was used to compare groups for all bipolar adjectives. In order to compare preferences for behaviorist and client--centered counseling, multivariate analysis of variance was computed combining groups of subjects within each theoretical orientation on all dependent variables except "interesting" versus "uninteresting".

Results:
The results demonstrated significant differences in preference ratings between S's exposed to behaviorist as compared to client--centered counseling sessions. Treatments conceptualized within a behaviorist orientation were preferred to client--centered treatments. No significant differences were observed between groups of S's exposed to different counseling sessions within a single theoretical framework. Behaviorist sessions were found to be more valuable, helpful, clarifying, satisfying, worthwhile, and good. No difference was observed on the "interesting" versus "uninteresting" dimension.

* *

Student Strike: An Educational Career Decision for Student Teachers

Ronald E. Hull and Robert L. Driscoll, SUC at Fredonia

Problem:
The teacher's position in the American social structure has been described as middle--class and upward mobile. Relatively small but personally significant socio--economic gains have contributed to the intensity with which most teachers believe that the social order in America is fundamentally just. Teachers' career decisions traditionally have been heavily weighed by factors linked with getting into the system and being successful. This description of teachers is based upon the occupational group as it is currently constituted. However, these data may not account for or represent the values and actions of those now aspiring to teaching as their chosen profession.

Friday, November 12 Playhouse II

The fact that there has been a considerable amount of student unrest across the nation for the past few years leads one to question whether or not the "new culture" has affected career of orientations of those currently going into teaching. More specifically, are career decisions of student teachers linked with changing the system as well as with getting into the system?

The occasion for studying a career decision incident, involving today's education students, came about in May 1970, when students at State University of New York at Fredonia went on strike as a gesture of indignation over U.S. military involvement in Southeast Asia. The strike shortened the school year at SUNY at Fredonia approximately two weeks.

Purpose:

The purpose of this study is to examine the three folowing questions. (1) What general factors were considered of import to a group of student teachers when they were forced to make a career decision brought about by social unrest in America? (2) What was the rationale upon which their decisions were based? (3) What was the nature of the conflict they experienced in arriving at their decisions?

Methodology:

101 of the 151 students involved in the student teaching program responded to the mailed Career Decision Questionnaire; 80 percent of the respondents were females; 92 percent of the respondents were student teaching at the elementary level. All but a few of the subjects were in their early twenties. Responses were anonymous. In terms of the variables, age and sex, the respondents were considered to be representative of the population (all people in the student teaching program at the time).

Findings:

There is little evidence that the student teachers visited in the sample acted in accordance with values of the new culture. The evidence tends to support the notion that the group was generally guided by occupational success motives and the punitive nature of their supervisors; thus, they behaved in a manner which tended to insure getting into the educational system.

In order of priority, the factors considered most important centered around responsibility to the school, college and career; reluctance to risk negative sanctions; personal growth aspirations, and lack of commitment to the strike.

Student teachers were irked because they felt they were not given freedom of decision-making, thus they perceived they were not treated in a professional manner by the "professionals".

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- SYMPOSIA -

Thursday, November 11 — New Lobby 1

2:00 - 3:30 P.M.

SYMPOSIUM NUMBER 1

TITLE OF SYMPOSIUM:

Research on Verbal Problem Solving in Mentally Handicapped Populations. . . .Past, Present, Future

CHAIRMAN:

H. A. Goodstein
University of Connecticut

OTHER PARTICIPANTS:

William Schenck
University of Connecticut

Gerard Thibodeau
University of Connecticut

Stan Vitello
University of Connecticut

The proposed symposium will focus on research in verbal problem solving as it relates to the mentally handicapped. The first presentation will review the literature on problem solving in the area of mathematics in an attempt to present a "state of the art" picture for the audience. The second presentation will review current research studies recently completed and underway at the University of Connecticut that are examining the processing of information for the solution of verbal problems. The third presentation will project future studies in this area, with particular emphasis upon discussion of research design.

These presentations will be discussed by the chairman as to the possibility for developing a theoretical model for information processing and retrieval in handicapped children. The audience will be asked to interact especially in the areas of research design and model development.

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Thursday, November 11 New Lobby 2

SYMPOSIUM NUMBER 2

TITLE OF SYMPOSIUM:

Thoughts on Mobilizing Talent for Educational Program Auditing Procedures
(Conversation and discussion with audience participation)

CHAIRMAN:

David F. Engelhardt
Engelhardt and Engelhardt, Inc.
Purdys, New York

OTHER PARTICIPANTS:

W. Stanley Kruger
Department of Health, Education,
and Welfare

Problem:

Some USOE funded programs require an outside agency as an educational program auditor (EPA). The EPA establishes and operates "a performance control system based on external reviews conducted by qualified outside technical assistance, designed to verify the results of the evaluation of an educational program (project) and to assess the appropriateness of evaluation procedures for determining the effectiveness of program (project) operation and management."* It is suggested that a team approach, including expertise in management, evaluation, curriculum, sampling, and general statistics would be most fruitful in carrying out program audits. How can we form such teams and can training of team members be enhanced by NERA or AERA? The excellence of auditing practice will probably depend on developing avenues through which the state-of-the-art is assessed and experiences are exchanged among auditors.

Purpose:

The discussion should accomplish several goals:

1. To see if general support exists for cooperative strategies to improve auditing practices.

2. To acquaint those interested in auditing with the current standards of performance and areas that need improvement.

3. To bring researchers with diverse backgrounds together in a topic of common concern — the continued development of the practice of educational program auditing. The contacts formed may lead to more team approaches in auditing.

4. To suggest to the directors of NERA specific suggestions for next year's meeting regarding educational auditing.

Thursday, November 11 — New Lobby 2

Methodology:

Dr. Engelhardt will present the problems as he sees them as a non-university-based consultant and a newcomer to the field of educational auditing in its specialized sense. The audience may have attended the opening general session; references may be made to the presentations given on accountability and evaluation. Dr. Kruger will present the problems as he has seen the auditing procedure evolve. This will be handled by using an outline of program auditing procedures issued by USOE. Each section may serve as a nucleus for discussion between Drs. Kruger and Engelhardt and others in the audience. The discussion will center on the kinds of talent and expertise needed to accomplish these procedures and the needs for developing new techniques, such as sampling procedures or statistical methods for handling criterion referenced tests. This discussion should reveal a need for NERA action.

Subdivisions of the audience may then work on possible NERA action. Suggestions will be forwarded to the NERA directors.

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*from S. Kruger: Accountability in DPSC Programs.....4/3/70.

* *

2:00 - 3:30 P.M. — New Lobby 3

SYMPOSIUM NUMBER 3

TITLE OF SYMPOSIUM:

Exemplary Applications of CAI

CHAIRMAN:

Harold E. Mitzel
The Pennsylvania State University

OTHER PARTICIPANTS:

G. Phillip Cartwright
The Pennsylvania State University

Keith A. Hall
The Pennsylvania State University

Carol A. Cartwright
The Pennsylvania State University

Thursday, November 11 — New Lobby 3

OTHER PARTICIPANTS:

Max Weiner
City University of New York

O. Dennis Barnes
Rochester Institute of Technology

Frank E. Giunti
U. S. Army Signal Center & School
Fort Monmouth, New Jersey

John F. Vinsonhaler
Michigan State University

J. Ronald Gentile
State University of New York at Buffalo

The data from a variety of computer-assisted instruction activities will be described and discussed by the participants. The discussion will represent a cross-section of applications and computer hardware and software that is being used currently in the United States—tutorial CAI for regular classroom teachers in the field of Special Education, evaluation of a large CAI installation in New York City, the use of CAI as a diagnostic tool at the National Technical Institute for the Deaf, and the implementation of CAI in providing basic electronics training in the U.S. Army Signal School. All of the participants in these presentations have been key people in the projects which they are describing. While the discussants, although very knowledgeable of the field of CAI, are not actively involved with CAI.

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2:00 - 3:30 P.M. — T.V. Room

SYMPOSIUM NUMBER 4

TITLE OF SYMPOSIUM:

Artificial Intelligence and Natural-Language Processing: Potential for Education

CHAIRMAN:

Richard McCann
U. S. Office of Education, Region I

Thursday, November 11 T. V. Room

OTHER PARTICIPANTS:

Ellis B. Page
University of Connecticut

Peter I. Tillett
South Australia School System, and University of Connecticut

Carl Helm
City University of New York

The uses of "intelligence" in education are as unlimited as education itself — yet most educators have little understanding how "artificial intelligence" may serve their needs and may solve educational problems. The computer is characteristically thought of, by educators, as a data-masher, grinding up large sets of numbers and reducing them to statistical summaries. That computers may work intelligently with some kinds of logical languages, and even with "natural" language (e.g., English), is still surprising to most educators, and little understood even by those who are aware of some of the possibilities.

The purpose of this symposium is to explain some of the processes by which computers may handle language, and to point the way toward future educational applications in such areas as administrative routines, the evaluation of student essays (for style or content), and the instruction and guidance of students.

The first speaker, Ellis B. Page, will explain some features of artificial intelligence, and discuss why these concepts will have an impact on educational theory and practice. Some examples will be given of areas of psychological ignorance which are exposed by artificial intelligence, and of promises for future insights. Dr. Page has for five years been director of a research in the computer analysis of student essays, and for one year a post-doctoral fellow at the MIT Computation Center, especially in such topics.

The second speaker, Peter Tillet, is a computer expert, on leave from his position as Director of Data-Processing for the South Australian School System, whose master's thesis was concerned with the use of computers in mathematics instruction, and whose doctoral area is in advanced programming for education. His address will show some strategies for analyzing student essays for content or "meaning".

Thursday, November 11 T. V. Room

The third speaker, Carl Helm, has been instructor in artificial intelligence at Princeton and at City University of New York, and has also been director of a large-scale CAI project in the New York area. His address will concern the problem of representing meaning in the computer, for its subsequent use for educational purposes.

The Chairman is Dr. Richard McCann, Director of Research for the Region I Office of the USOE, who is broadly familiar with research strategies in education.

There will be time for discussion from the floor.

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3:45 - 5:15 P.M. Nightwatch Room

SYMPOSIUM NUMBER 5

TITLE OF SYMPOSIUM:

A Symposium of Title III Center Coordinators of Redesign

CHAIRMAN:

William P. McLoughlin
St. John's University

OTHER PARTICIPANTS:

Hugh W. Fraser
Genessee Valley Regional Educational Center

Ronald B. Buckman
Catskill Regional Center

W. Harney Davey
Northeast Regional Education Center

Robert Ogle
Finger Lakes Region Educational Planning Center

James F. Miller
ECCO Serving Onondaga and Oswego Counties

New York State is attempting to totally redesign the educational systems of its school districts to develop new systems which will serve the present needs of the communities and be adaptable to their needs in the future. The emphasis is on the community as the principal determinant of its new system's design.

Thursday, November 11 — Nightwatch Room

Numerous groups and agencies, from students, school personnel, community representatives, parents, and planning agencies to State Education Department units, are involved in the effort. Title III Centers, working within their function as facilitators, are cooperating with the districts in planning their new educational systems.

The participants of the Redesign Project symposium, as representatives of Title III Center, will discuss the extent to which redesign has progressed in the districts they serve and the Center's role in aiding the communities to plan and operate their new systems.

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3:45 - 5:15 P.M. — New Lobby 1

SYMPOSIUM NUMBER 6

TITLE OF SYMPOSIUM:

Meet the Researchers: A Symposium of State and Federal Research Leaders in the Northeast

CHAIRMAN:

Lorne H. Woollatt
New York State Education Department

OTHER PARTICIPANTS:

Wilmer E. Wise
Delaware Department of Public Instruction

James F. Baker
Massachusetts Department of Education

John Casey
New Jersey Department of Education

Robert B. Hayes
Pennsylvania Department of Public Instruction

Richard McCann
Region I, U. S. Office of Education

John Sokol
Region II, U. S. Office of Education

State researchers will describe activities related to planning and action of research, development, demonstration, dessemination, and evaluation of programs.

Federal representatives will deal with cooperative research and, more particularly, with the small grants program.

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Thursday, November 11 New Lobby 3

SYMPOSIUM NUMBER 7

TITLE OF SYMPOSIUM:

Monte Carlo Research

CHAIRMAN:

Merlin W. Wahlstrom
Ontario Institute for Studies in Education

OTHER PARTICIPANTS:

James E. Carlson
University of Pittsburgh

Walter L. Sullins
Indiana State University

Wee Kiat Tan
University of Pittsburgh

Richard R. Fellers
University of Pittsburgh

Louis A. Pingel
University of Pittsburgh

The general purpose of this symposium is to present to members of NERA some techniques for Monte Carlo studies that are apparently not in widespread use. Monte Carlo studies are appearing more and more often in Educational Research journals and at meetings of educational research. All too often such studies are carried out by using techniques that are not appropriate for the computer hardware used or that do not employ the optimum design for the problem under investigation. The presentations in this symposium provide some principles for improving the design of Monte Carlo studies along with some examples of studies employing these principles.

The presentations of Richard Fellers and Wee Kiat Tan provide examples of studies in which the sampling distributions of test statistics for tests on variances and a shortcut estimate of the standard deviation, respectively under various conditions of non-normality were investigated. The presentation of Walter Sullins is a combination of some empirical results relating to skewness and kurtosis and some principles of Monte Carlo design, while that of James Carlson is primarily concerned with generation techniques and design considerations for Monte Carlo studies.

Thursday, November 11 — Playhouse II

4:15 - 5:15 P.M.

SYMPOSIUM NUMBER 8

TITLE OF SYMPOSIUM:

Alternative Procedures with Objective Tests: An Examination of Three Strategies

CHAIRMAN:

Stanley S. Jacobs
University of Pittsburgh

OTHER PARTICIPANTS:

Alfred D. Garvin
University of Cincinnati

Robert M. Rippey
University of Illinois

Roger A. Kochler
Ohio University

Ross E. Traub
Ontario Institure for Studies in Education

William Angoff
Educational Testing Service

Nature of symposium:

Two persistent concerns of measurement specialists, since the widespread use of objective tests began about 40 years ago, have been methods of controlling guessing behavior and of tapping partial knowledge. These related problems are based on the assumption that the usual 1-0 scoring procedure results in a rather crude approximation of person i's position on a latent continuum.

The symposium concerned itself with a critical examination of three methods advanced as appropriate for increasing the amount and quality of information obtainable from objective test responses: confidence-weighting, probabilistic testing, and Coombs'-type directions. Several newer developments were briefly mentioned.

Thursday, November 11 Playhouse II

Participants:

The participants noted have each published research dealing with the topics they will be presenting. Each participant will be presenting an extensive synthesis of the theoretical and empirical work on their topic. The discussants have conducted research in the general area dealt with by the symposium and have worked extensively on related topics.

Agreements:

All participants and discussants have agreed to participate.

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Friday, November 12 — Nightwatch Room

9:00 - 10:40 A.M.

SYMPOSIUM NUMBER 9

TITLE OF SYMPOSIUM:

The Impact of Open Admissions on a Community College: the Presumption and the Reality

CHAIRMAN:

John J. Prior
Queensborough Community College

OTHER PARTICIPANTS:

Helen Baldwin
Queensborough Community College

Helen Brody
Queensborough Community College

Sheena Gillespie
Queensborough Community College

James J. Hennessy
Queensborough Community College

David Lavin
City University of New York

Eugene J. Loveless
Queensborough Community College

Patricia Evanoski
Queensborough Community College

Student populations within an urban community college will be compared on a number of academically relevant factors. The populations include: students enrolled under Open Admissions criteria; and students enrolled under previous selective admissions criteria.

The impact of Open Admissions policy procedures was expected to be marked, and curriculum, testing and remediation changes were therefore instituted. Public claims for success of Open Admissions policies are based on the notion that substantial academic, social, cultural, economic, and motivational differences characterize the two student groups. This presentation is an empirical evaluation of these assumed differences.

Friday, November 1e — Nightwatch Room

Groups will be compared on the following dimensions: A)academic abilities on entry; B) student satisfaction with the college environment; C) socio-economic and biographical variables; D)in-college grades; E) student's perception of the college climate. Anecdotal and impressionistic faculty reactions to Open Admissions will be presented.

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9:00 - 10:40 A.M. — New Lobby 2

SYMPOSIUM NUMBER 10

TITLE OF SYMPOSIUM:

Uses and Abuses of Behavioral Objectives Measurements in Educational Research

CHAIRMAN:

George Forlano, New York City Board of Education

OTHER PARTICIPANTS:

Robert P. Beech, New York University

Gilbert R. Horowitz, New York City Board of Education

Richard L. Poole, State University of New York at Buffalo

Alice Padawer-Singer, Columbia University

Eric Jonassen, New York University

Upon the publication of Robert Mager's (1962) Preparing Instructional Objectives, the fields of Curriculum Development and Educational Research have moved closer toward utilization of measurement procedures which were previously considered overly narrow or inappropriate in global educational research. Most recently, the New York State Department of Education has attempted to systematically utilize specific behavioral predictions and definitions in proposals funded under the Urban Education Act. These predictions have attempted to utilize Mager's procedures in the formulation of both educational implementation objectives and in the development of educational measurement objectives. Thus, for example, it is expected that measurement objectives will indicate a percentage of students who will exhibit a given behavior on a specific test or measure, under specified conditions. Desirable as such precise measurement may seem, some critics have claimed that these procedures require predictions for which there are no known norms in areas which have never been adequately standardized.

Related to the problems in the uses of behavioral objectives are the issues of educational accountability and performance contracting. If conditions, percentages, and indices can be specified for measurement design, then the systematic accounting of the educational process for the "fixing of blame" and the letting of performance contracts to accomplish predictable and measurable goals become contingent possibilities. If, on the other hand, it is not possible to develop, with adequate confidence, evaluation objectives which are genuinely behavioral in the absence of adequate norming or measurement procedures then the several assumptions made by proponents of educational accountability and performance contracting become open to serious scientific criticism.

In this regard, Gilbert R. Horowitz will present a paper on The Case for Rational Behavioral Measures in Educational Research. This presentation will outline a rationale for utilization of behavior-learning theory in the measurement of educational performance. Robert P. Beech will present a paper on Measuring the Intangibles: The Evasive Objectives. This presentation will focus on the need and difficulty in measurement of social and psychological factors often deleted from measures of terminal performance. The third presentation, Educational and Instructional Objectives by Richard L. Poole, will discuss the different types of educational objectives, their dimensionality, and their relation to the educational and instructional process. Distinctions are made among the types of objectives affecting the writing of statements of objectives and the activities teachers, administrators, and other educational workers engage in to realize these objectives. The interrelationships among written statements of educational objectives and the instructional and evaluative processes are analyzed.

Overall, this symposium will survey the strengths and weaknesses of methods and procedures used in the past and planned for the future which seek to specify terminal behaviors during the planning phases of educational projects and to determine whether our present state of knowledge in educational research will realistically permit such predictions.

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Friday, November 12 New Lobby 3

SYMPOSIUM NUMBER 11

TITLE OF SYMPOSIUM:

Methods of Measuring Work Values: Normativity versus Ipsativity

CHAIRMAN:

Robert K. Gable
University of Connecticut

OTHER PARTICIPANTS:

Joseph T. Impellitteri
Pennsylvania State University

Jerome T. Kapes
Pennsylvania State University

Robert F. McMorris
State University of New York at Albany

The measurement of work value orientations may contribute greatly to the process of vocational decision making. But like any psychological construct, methodological problems are associated with generating valid and reliable measures in the work value domain. This symposium will present and discuss selected procedures and problems associated with the normative versus ipsative measurement of work values.

The first presentation entitled "The Measurement of Work Values: A Normative Framework" will review the concept of work values. Following this, Super's selection of a normative procedure for the Work Values Inventory will be discussed. Methodological considerations in the use of such normative measures in the value domain will be presented.

The second presentation is entitled "The Nature and Measurement of Work Values". Noting that it has been established that work values are a significant factor in exploring vocational behavior, the purpose of the presentation is to examine the psychological nature of work values, and based upon that discussion to present a rationale for their measurement within an appropriate frame. It is proposed that the most appropriate frame within which to measure work values is an ipsative one. A description of the Occupational Values Inventory (OVI) as an example of an ipsative instrument is presented. The specific values selected for the OVI, and the basis upon which they were identified are discussed. The most significant aspect of the OVI for the purposes of this paper is its forced-choice format. The tasks to which the testee must respond given this format adequately represent

the valuing process. The important measurement objective is to assess whether John values X more than he does Y, not whether John values X more than Tom.

Finally, the third presentation entitled "The Ipsativity Problem In Work Values Measurement and Possible Solutions" will note that the ipsativity problem is created because of the expected negative inter-correlations among the scales of an ipsative instrument. Others who have encountered this problem when using an ipsative approach to measuring affective constructs, have either abandoned the method or ignored the problem. Because of the authors' basic belief in the essentially ipsative nature of work values, the Occupational Values Inventory (OVI) was constructed with an ipsative format. Some solutions to the problems encountered in validating and using the OVI are presented in this paper.

The techniques explored for use in validating the OVI include the traditional Pearson product-moment correlation coefficient as well as factor analysis, latent partition analysis and multiple regression analysis. In addition, the use of the ipsative scores produced by the OVI is discussed with suggestions for applications in vocational development research. Finally, an example of the use of the OVI with multiple regression analysis is provided.

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9:00 - 10:40 A.M. T. V. Room

SYMPOSIUM NUMBER 12

TITLE OF SYMPOSIUM:

Measuring with the Semantic Differential in Educational Research: Some Methodological Problems

CHAIRMAN:

Mervin D. Lynch
Northeastern University

OTHER PARTICIPANTS:

E. Vaughn Gulo
Northeastern University

Roger Brightbill
Northeastern University

Friday, November 12 T. V. Room

OTHER PARTICIPANTS:

Thomas Edwards
Boston University

To date work with the semantic differential has been devoted mainly to the isolation of factors of connotative meaning and in these connections, the semantic differential has been extensively applied without sufficient knowledge of the methodological guidelines for its research use. The major objective of this symposium is to bring together research which has as its focus the study of methodological problems in the use of the semantic differential.

E. Vaughn Gulo, College of Education, Northeastern University, presents a paper entitled "Measuring Dimensions of Teaching Effectiveness with the Semantic Differential". Ratings were obtained in four separate studies from subject samples at two universities on semantic differential scales over an eight year period of time. These ratings were subjected to correlation and factor analysis. Results were threefold: Factors such as teaching dynamism, acceptance-change and action-freedom appear over time and with different student populations; the proportion of variance for each of these factors varied between populations studied and from one factor analysis to another; the semantic differential seems to be an especially useful technique for quantifying emergent variables associated with students perceptions of teaching effectiveness and effective professors.

Roger Brightbill, Department of Psychology, Northeastern University, presents a paper entitled "Indexing Differences Between Groups with the Semantic Differential". Such factors as the selection of concepts, the selection of scales and the selection of subjects are analyzed. Two studies including susceptible and nonsusceptible hypnotic subjects are utilized as an example of this type of research. No significant differences were found, leading to the conclusion that the semantic differential is not a good instrument for evaluating group differences.

Mervin Lynch, College of Education, Northeastern University, evaluates the D statistic as a method of analysis of semantic differential data in a paper entitled "Multidimensional Measurement with the D Statistic and the Semantic Differential". The D statistic (generalized distance function), such as used in studies by Tannenbaum and Lynch provides an index of the similarity between two profiles of judgment (such as ratings on a person and ratings on a standard) according to the following formula:

$$D = \sqrt{\sum_{i=1}^{n} (X_{ij} - X_{ik})^2}$$

where (i) is a scale, (j) is a concept, (k) is a concept and (n) is the number of scales. This paper presents the D statistic, compares it to other avenues of analysis of semantic differential data, reports on prior applications and considers the distributional nature and interpretation of D in terms of direction and degree.

The semantic differential has often been abused as a measurement technique, in that some researchers have utilized it to gather large arrays of data without prior planning on mode of analysis, selection of scales or applicability. Hopefully the presentations in this symposium will stimulate prior methodological evaluation in planning and use of the semantic differential and provide some useful guidelines to its research applicability.

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10:50 A.M. - 12:15 P.M. New Lobby 2

SYMPOSIUM NUMBER 13

TITLE OF SYMPOSIUM:

Ability, Performance, Attitudes and Process Education

CHAIRMAN:

Donald Treffinger
Purdue University

OTHER PARTICIPANTS:

Richard E. Ripple
Cornell University

Ruth S. Nickse
State University of New York at Cortland

Donald N. Ronchi
Cornell University

John Youngers
State University of New York at Geneseo

John Herlihy
State University of New York at Albany

This investigation was conducted as an attempt to document certain aspects of small group work and their relationships with process education. Particular attention was given to such student characteristics as ability levels, quality of group performance, and attitudes toward problem solving.

Friday, November 12 New Lobby 2

Small groups of students were video-taped while working on curricula identified as process-oriented. Video-taped protocols were also recorded on the same groups while involved in non-process activities. Comparisons were made between several measures of group performance taken before, during, and after exposure to process curricula. In addition, attitude and personality inventories were administered both before and after the use of process curricula.

Process-oriented activities seemed to mitigate the relationship between students' ability levels and performance. The emphasis on conceptual activity in process curricula is discussed as a possible explanation of this finding. Attitudes toward problem solving were also found to increase after exposure to process curricula. Greater increases in attitudes were found in students who had used highly structured curricula.

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10:50 A.M. - 12:15 P.M. New Lobby 3

SYMPOSIUM NUMBER 14

TITLE OF SYMPOSIUM:

RELATE (Role, Empathy, Leadership, and Teamwork in Education)

CO-CHAIRMEN:

Harry E. Randles
Syracuse University

J. Donald Herring
Central New York School Study Council

OTHER PARTICIPANTS:

M. Kathleen Zillioux
Central New York School Study Council

RELATE is an acronym representing a series of human relations activities dealing with Role, Empathy, Leadership, and Teamwork in Education. Each of the activities is designed for use in small (15-30) informal group settings.

The intent of the program is to enhance interaction and cooperative insight into contemporary problems among students, teachers, administrators, and other members of the school community.

Friday, November 12 New Lobby 3

The objectives of the program suggest that the RELATE activities fall under the now popular phrase "humanistic education". The intention and the assumption upon which the program rests is that, as groups learn to explore and seek solutions to problems cooperatively, they also grow together in respect for, and understanding of, each other.

The activities included in RELATE can be generally regarded as skill building activities which are subdivided into exercises dealing with communications, decision-making and leadership, process, values and motivation, and trust.

In a two-hour session, a general introduction and overview would be presented, followed by the rationale and objectives for the entire package. Various uses will be discussed and evaluative procedures described. The majority of the session would be devoted to group participation in several of the activities, followed by a general discussion of the individual activities as well as of the entire program.

* *

10:50 A.M. - 12:15 P.M. T. V. Room

SYMPOSIUM NUMBER 15

TITLE OF SYMPOSIUM:

Teacher-School Organization Relationships: Three Analytic Investigations

CHAIRMAN:

R. Oliver Gibson
State University of New York at Buffalo

OTHER PARTICIPANTS:

Lewis J. Sinatra
State University of New York at Buffalo

David A. Payton
State University of New York at Buffalo

Campion H. Leczinsky
State University of New York at Buffalo

James A. Conway
State University of New York at Buffalo

Friday, November 12 T. V. Room

In a society that is increasingly characterized as "temporary", with organizations in a state of transience between bureaucracy and "ad-hocracy", there is a resurgent need for ascertaining human and sociological variables associated with the viability of organizations. This symposium explores a set of variables including (1) perceived task autonomy, (2) interpersonal needs, and (3) perceived congruence with organizational ends and means as possible predictors of "goodness-of-fit" in teacher-organization relationships.

On the basis of findings from three empirical investigations the predictor and criterion variables are reanalyzed to suggest additional hypotheses to be tested.

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INDEX OF PARTICIPANTS

Names	Pages
Abramson, Jacob	45
Abramson, Theodore	33, 38
Angoff, William	64
Archer, Philip D.	18
Baker, James F.	62
Baldwin, Helen	66
Barabasz, Arreed F.	53
Barabasz, Marianne	53
Barnes, Dennis O.	59
Bauman, Hilary	47
Beech, Robert P.	67
Brightbill, Roger	70
Brody, Helen	66
Buckman, Ronald B.	61
Burrill, Donald F.	6
Carlson, James E.	63
Carter, Donald E.	25, 35, 36
Cartwright, Carol A.	58
Cartwright, Phillip G.	58
Casey, John	62
Churchill, William D.	2
Conway, James A.	74
Davey, Harney W.	61
Dommermuth, Paul R.	34
Douma, Elaine	12
Driscoll, Robert L.	54
Edwards, Thomas H.	14, 71
Ehrlich, Virginia Z.	10
Engelhardt, David F.	57
Evanoski, Patricia	66
Fellers, Richard R.	63
Fleming, James T.	27
Flynn, Mary E.	44
Forlano, George	45, 67
Formanek, R.	46
Foucar, Jan	8
Fraser, Hugh W.	61
Gable, Robert K.	39, 40, 69
Garvin, Alfred D.	64
Gentile, Ronald J.	59
Gibson, Oliver R.	41, 52, 74
Gilbert, Jacquelyn K.	21
Gillespie, Sheena	66
Giunti, Frank E.	59
Goodstein, H. A.	56
Gorth, William P.	7
Gowie, Cheryl J.	31
Gray, William H.	1
Gulo, Vaughn E.	70
Gustafson, Richard A.	42
Hall, Keith A.	58
Hambleton, Ronald K.	7
Harckham Laura D.	21
Hayes, Robert B.	62
Helm, Carl	60
Hennessy, James J.	66
Herlihy, John	72
Herring, Donald J.	15, 73
Horowitz, Gilbert R.	67
Hritz, Ronald J.	2
Hull, Ronald E.	47, 54
Hunerberg, C.	46
Impellitteri, Joseph T.	69
Jacobs, Stanley S.	8, 64
Jonassen, Eric	67
Kapes, Jerome T.	69
Kievit, Mary B.	12, 13
Kleinke, David	6
Koehler, Roger A.	64
Kruger, Stanley W.	57
Lavin, David	66
Leczinsky, Campion H.	74
Loveless, Eugene J.	66
Lynch, Mervin D.	70
McCann, Richard	59, 62
McClelland, Samuel D.	3
McCook, William H.	40
McCowan, Richard J.	35, 36, 53
McLoughlin, William P.	61
McMorris, Robert F.	69

Name	Pages
McNally, Lawrence	29
Miller, James F.	61
Mitzel, Harold E.	58
Mohan, Modan	14
Mongerson, Duane H.	35
Mruczek, Edward J.	17
Nickse, Ruth S.	72
Ogle, Robert	61
Olsen, Henry D.	22, 25
O'Reilly, Robert F.	7
Ostrow, B.	46
Padawer-Singer, Alice	67
Page, Ellis B.	60
Payton, David A.	74
Petrie, Inez N.	47
Petrie, Thomas A.	47
Pingel, Louis A.	63
Planz, Charles A.	52
Poole, Richard L.	67
Posner, George J.	28
Powers, James E.	4
Prior, John J.	66
Randles, Harry	15, 73
Rippey, Robert M.	64
Ripple, Richard E.	72
Ronchi, Donald M.	72
Salter, Ruth	12
Sause, Edwin F.	44
Sax, Pearl S.	49
Schenck, William	56
Sewall, Michael B.	1, 18
Sheehan, Donald J.	31
Siebert, Robert	27
Sinatra, Lewis J.	74
Smith, Stuart E.	2
Sokal, John	62
Spath, Guy D.	17
Spilman, Helen	38
Stegman, C.	2
Strum, Irene	17
Sullins, Walter L.	63
Sullivan, Raymond	38
Tan, Wee Kiat	63
Teitelbaum, Deena	20
Thibodeau, Gerard	56
Throop, Robert	33
Tillett, Peter I.	60
Timm, N.	2
Traub, Ross E.	64
Treffinger, Donald	72
Tychsen, Alfred	40
Van Istendal, Theodore G.	51
Vinsonhaler, John F.	59
Vitello, Stan	56
Wahlstrom, Merlin W.	63
Weiner, Max	59
Wise, Wilmer E.	62
Wollin, Williamina	29
Woollatt, Lorne H.	62
Younger, John	72
Zillioux, Kathleen M.	15